

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

THE GREEN PET SHOP ENTERPRISES,
LLC

Plaintiff,

v.

MAZE INNOVATIONS, INC.

Defendant.

Civil Action No. 1:15-cv-01138

Honorable Matthew F. Kennelly

JOINT APPENDIX



US008720218B2

(12) **United States Patent**
Prendergast

(10) **Patent No.:** US 8,720,218 B2
(45) **Date of Patent:** May 13, 2014

(54) **PRESSURE ACTIVATED RECHARGING COOLING PLATFORM**(75) Inventor: **Gerard E. Prendergast**, Chicago, IL (US)(73) Assignee: **The Green Pet Shop Enterprises, LLC**, Northbrook, IL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1064 days.

(21) Appl. No.: **12/760,045**(22) Filed: **Apr. 14, 2010**(65) **Prior Publication Data**

US 2011/0252822 A1 Oct. 20, 2011

(51) **Int. Cl.***F25D 23/12* (2006.01)*F25D 3/08* (2006.01)*F25D 3/10* (2006.01)(52) **U.S. Cl.**USPC **62/259.3; 62/529; 62/457.2**(58) **Field of Classification Search**

USPC 62/259.3, 457.2, 529

See application file for complete search history.

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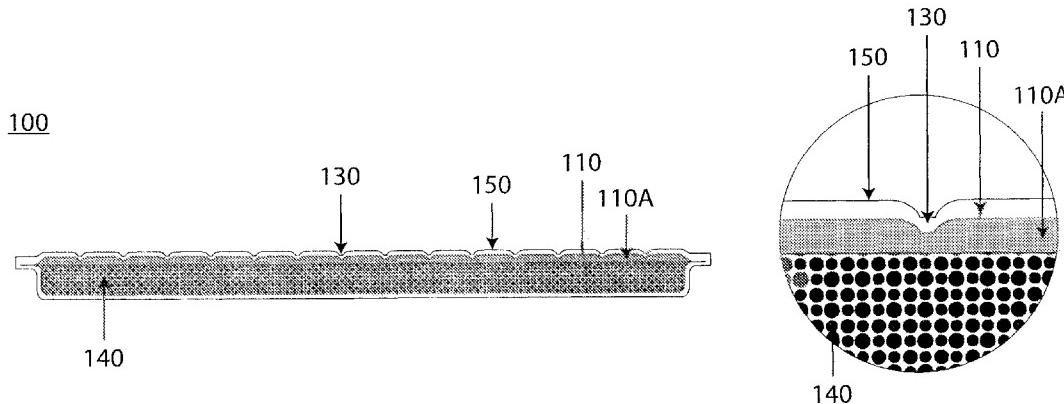
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(57) **ABSTRACT**

A cooling platform for cooling an object is provided. The cooling platform comprises a temperature regulation, a support layer, and a channeled covering layer. The temperature regulation layer has a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance. The support layer is substantially bonded to the bottom side of the temperature regulation layer and is comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. The channeled covering layer encompasses the support and temperature regulation layers.

20 Claims, 7 Drawing Sheets

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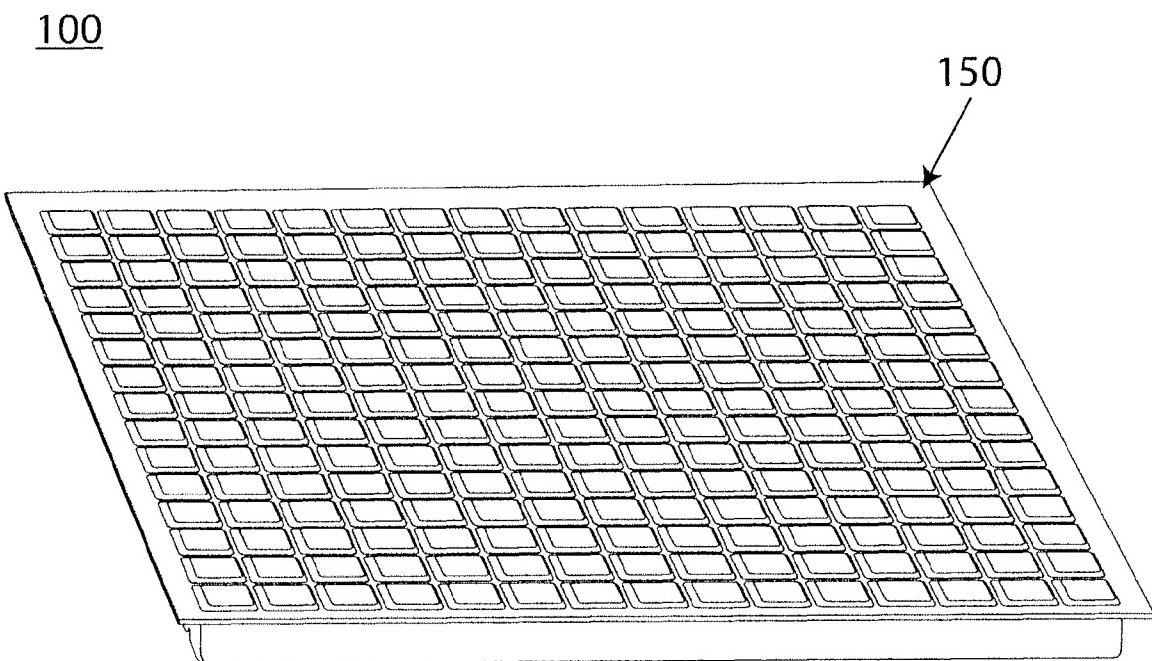


Fig. 1

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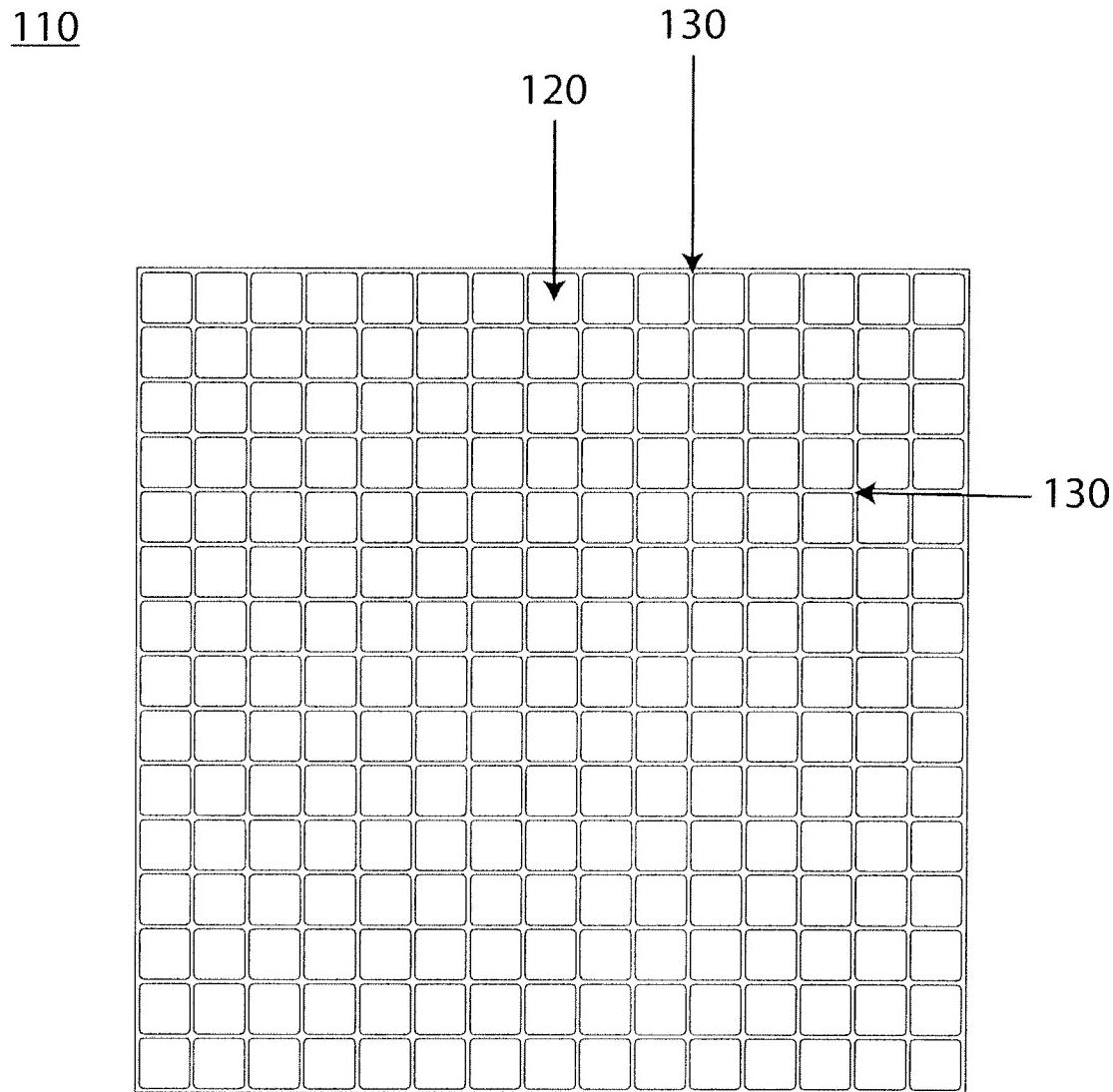


Fig. 2

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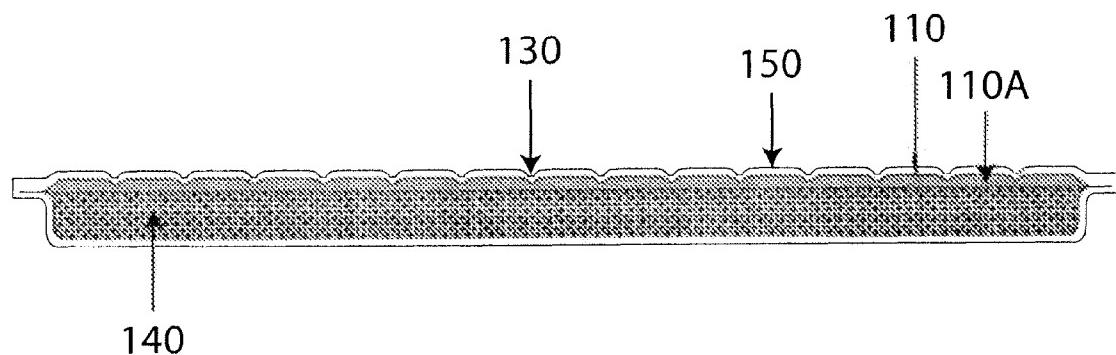


Fig. 3

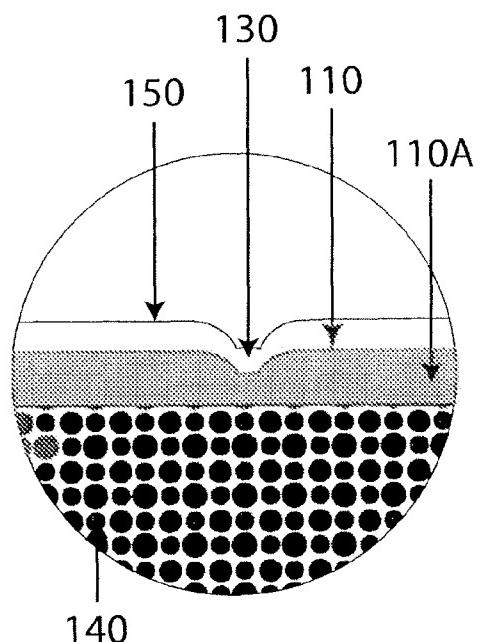


Fig. 4

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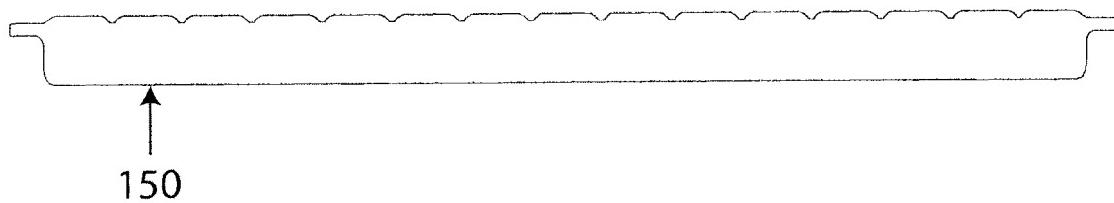


Fig. 5

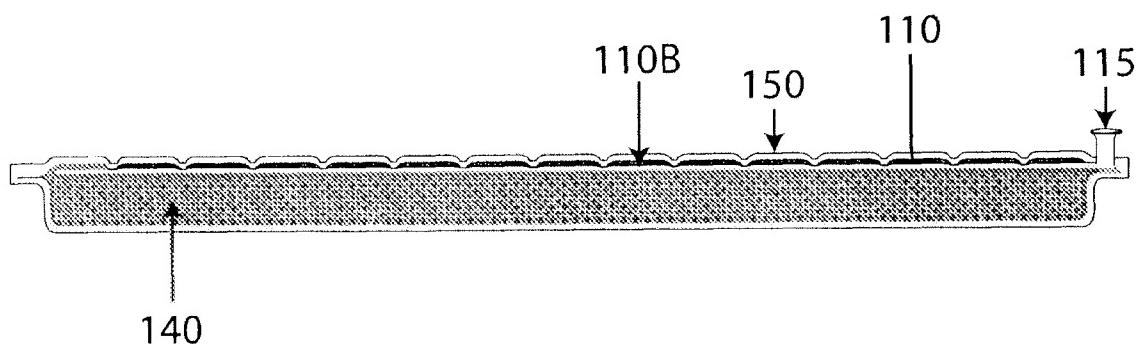


Fig. 6

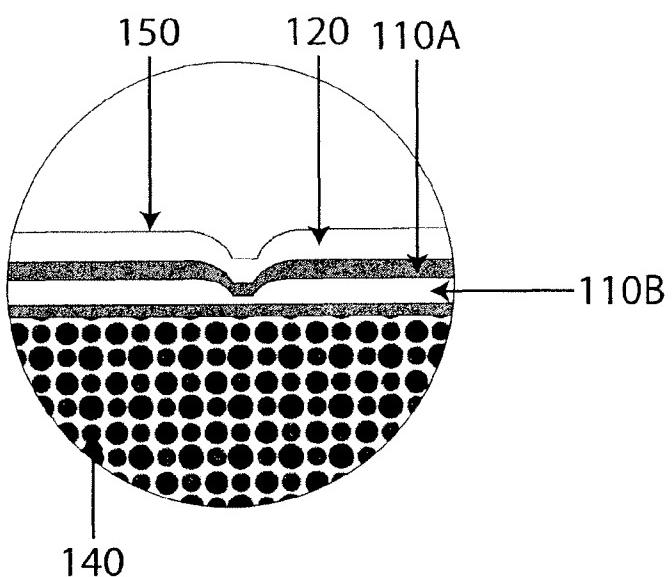


Fig. 7

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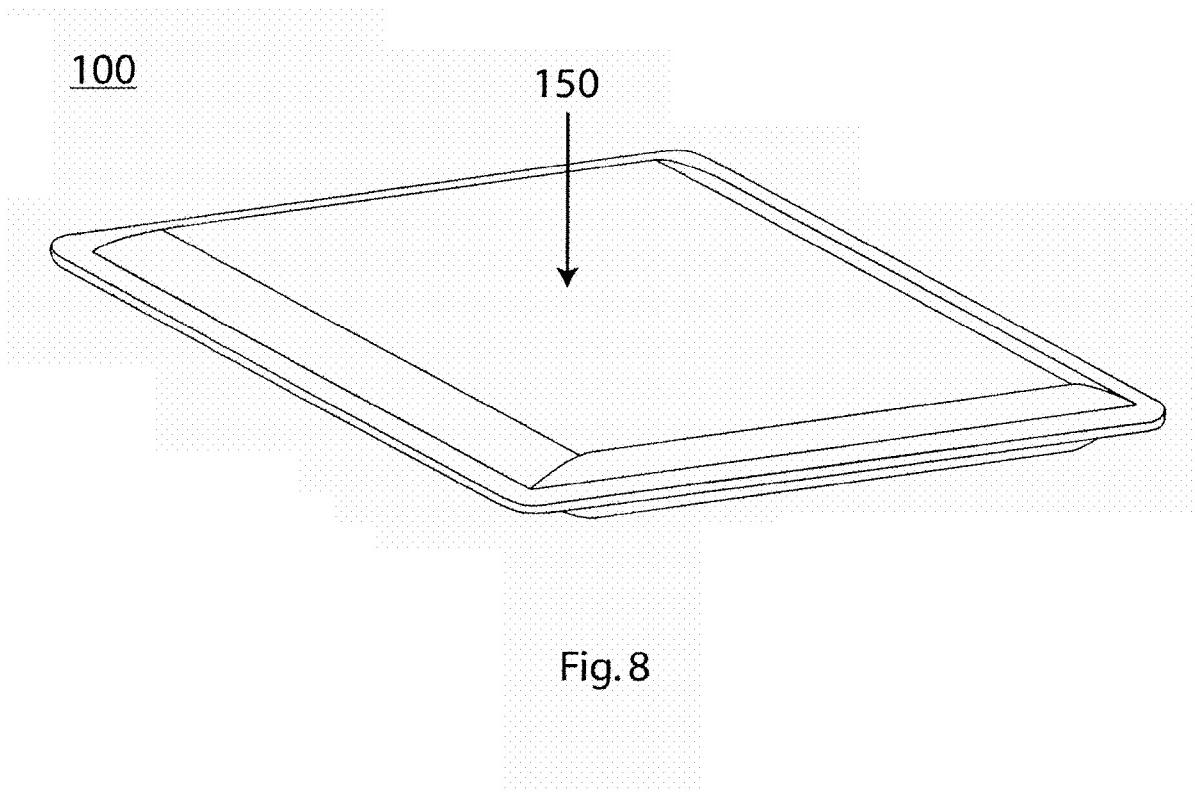


Fig. 8

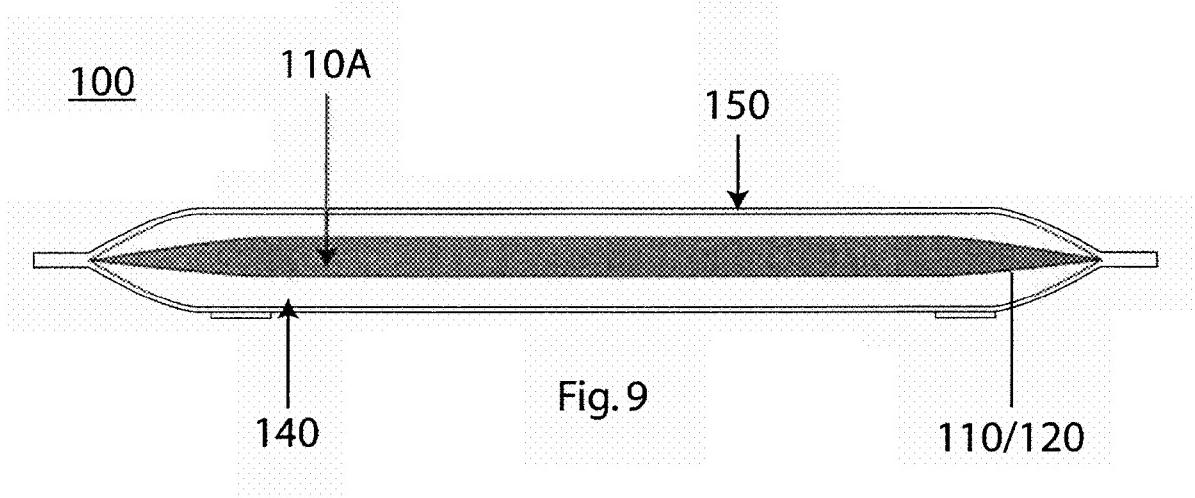


Fig. 9

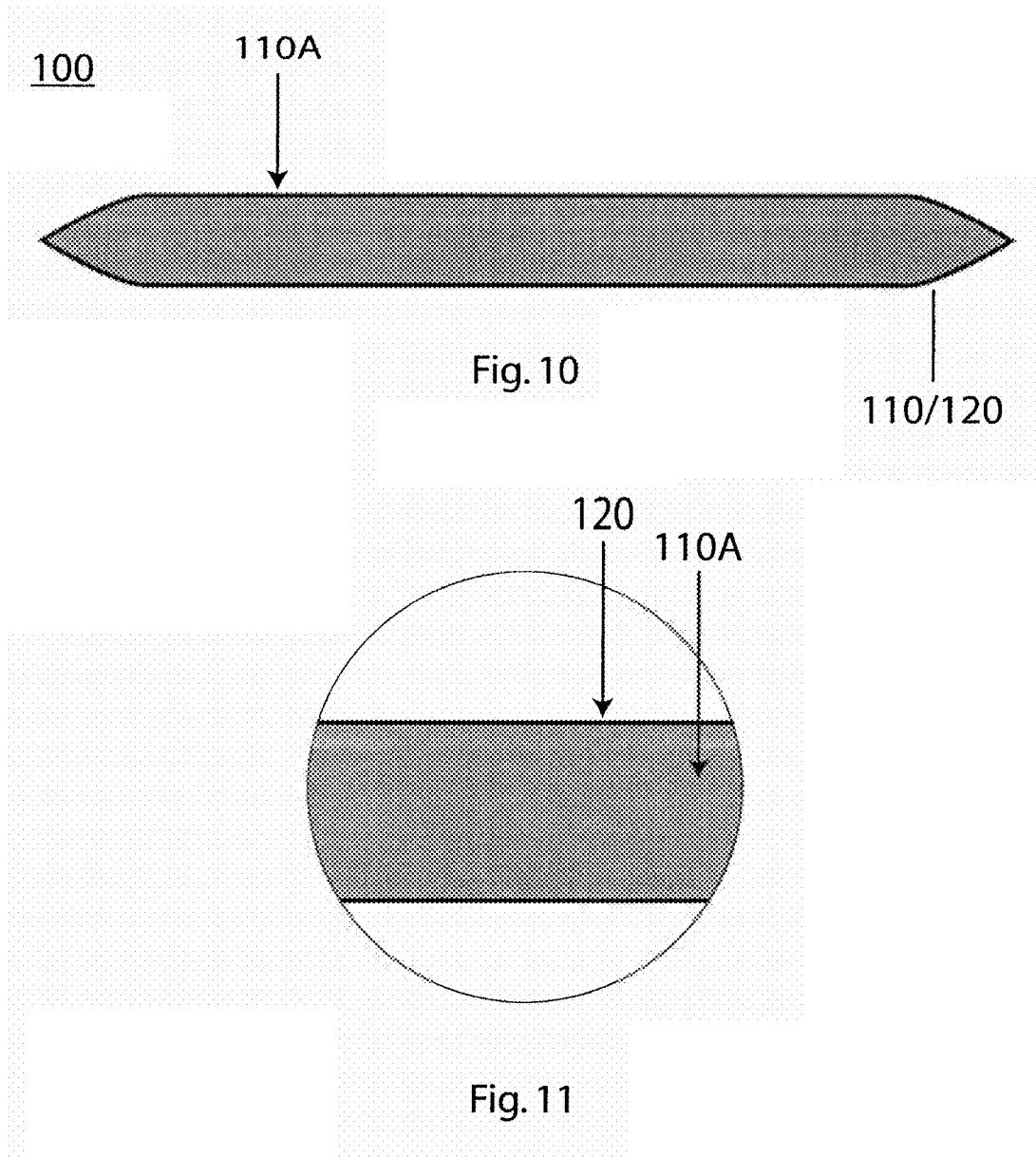
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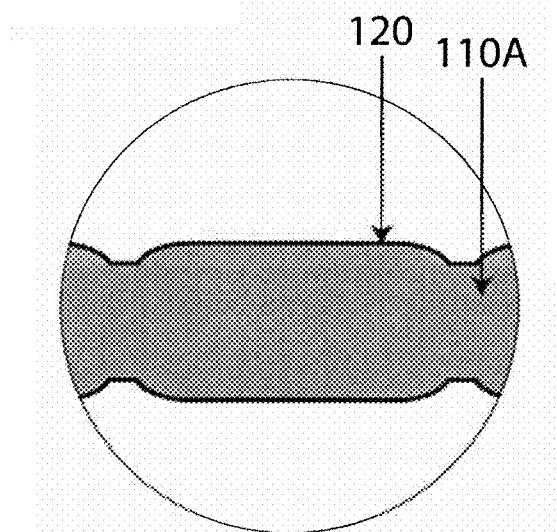
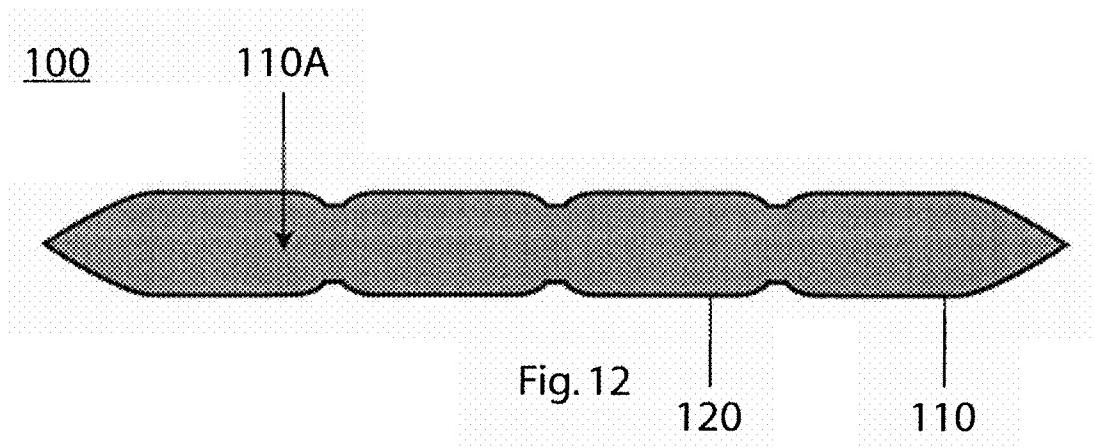


Fig. 13

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1**PRESSURE ACTIVATED RECHARGING
COOLING PLATFORM****BACKGROUND****1) Field of the Invention**

The invention relates to temperature controlled platforms, particularly, cooling platforms for animals.

2) Discussion of the Related Art

Pet beds serve as a place to rest or sleep, for pets such as cats and dogs. Many times, depending on the application, these pet beds are directed towards cooling or heating pets. These beds can be used during post-surgery recovery, dysplasia, or post-chemotherapy. Generally, these pet beds aid in the comfort and safety of the pet.

Many pet beds are known to have cooling mechanisms. Some pet beds provide a centralized cooling plate with no mechanism to circulate. These pet beds are electrically connected to a power source. Power sources often times fail, negating the “portable” aspect of a product. Further, such systems require heavy and complex equipment, and are not typically portable or user friendly.

There are other pet beds available which use alternative or “non-electric” means to cool a pet. These pet beds generally use ice packs. However, these ice packs eventually melt and need to be replaced. Accordingly, it is desirable to provide an improved cooling bed for pets.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described by way of example with reference to the accompanying drawings wherein:

FIG. 1 illustrates a top angled perspective of a cooling platform.

FIG. 2 illustrates a top view of a temperature regulation layer of the cooling platform.

FIG. 3 illustrates a cross-sectional view of the cooling platform.

FIG. 4 illustrates a detailed cross-sectional view of the cooling platform.

FIG. 5 illustrates a cross-sectional view of a channeled covering layer of the cooling platform.

FIG. 6 illustrates a detailed cross-sectional view of an alternative embodiment of the cooling platform.

FIG. 7 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

FIG. 8 illustrates a top angled perspective of an alternative embodiment of the cooling platform.

FIG. 9 illustrates a cross-sectional perspective of the alternative embodiment of the cooling platform.

FIG. 10 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

FIG. 11 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

FIG. 12 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

FIG. 13 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is now described with reference to figures where like reference numbers indicate identical or functionally similar elements. While specific configurations and arrangements are discussed, it should be understood that this is done for illustrative purposes only. A person skilled in

the relevant art will recognize that other configurations and arrangements can be used without departing from the spirit and scope of the invention.

The invention described herein is multilayered. Each layer, in an embodiment, is bonded to the next layer in some fashion, in that, each layer is comprised of a first and a second side and is bonded to the respective side accordingly. As such, the term “bonded” refers to the joining, adhering, affixing, connecting, attaching, threading or the like, through chemical, mechanical or electrical avenues, of at least two elements of a cooling platform, such that the elements tend to be and remain bonded during normal use conditions of the cooling platform.

FIG. 1 illustrates a cooling platform 100. The cooling platform 100 is comprised of a temperature regulation layer 110 (illustrated in FIG. 2), a support layer 140 (illustrated in FIG. 3), and a channeled covering layer 150.

FIG. 2 illustrates the temperature regulation layer 110 in more detail. The temperature regulation layer 110 is adapted to hold a composition 110A (illustrated in FIG. 3) and provides temperature regulation to the cooling platform 100. The temperature regulation layer 110 has an angled segment 120, which includes a top side and a bottom side (illustrated FIG. 8 and FIG. 9). The angled segment 120 is formed by channels 130 and includes a sealed perimeter.

In an embodiment, and as illustrated in FIG. 2, the temperature regulation layer 110 includes a plurality of angled segments 120 formed by a plurality of channels 130. The channels 130 effectively space the top and bottom sides of each angled segment 120 at a predefined distance. In an embodiment, the predefined distance can equal zero, thus completely forming each angled segment 120 and cutting off any interconnection or communication therein.

In another embodiment, that predefined distance can be measured depending on the object using the cooling platform 100. In this embodiment, the predefined distance allows for interconnection between the angled segments 120 of the composition 110A (including pressure portions 110B as seen in FIG. 6 and FIG. 7). In this embodiment, the interconnection would apply to those angled segments 120 within the perimeter of the temperature regulation layer 110, as the perimeter is sealed.

The cooling platform 100 is adapted to provide cooling to a wide variety of objects. As used herein, the term “object” can mean a variety of things including but not limited to domestic animals, such as cats and dogs. The use of the cooling platform 100 can extend to human use in vehicles or similar circumstances calling for such regulation. Generally, the cooling platform 100 can be used for anything that needs or requires either heat, cool or temperature regulation.

FIG. 3 and FIG. 4 illustrate a cross-section of the cooling platform 100, which includes the support layer 140. The support layer 140 is substantially bonded to the bottom side of the temperature regulation layer 110. The support layer 140 is comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object.

In an embodiment, the support layer 140 can be made from polyurethane foam, elastomer foam, memory foam, or other suitable material. In another embodiment, the support layer 140 is made of an orthopedic foam, of a consistency designed to protect joints and provide appropriate support to the skeletal system.

In an embodiment, the support layer 140 can include soft, pliable, and removable stuffing material to provide cushioning, allowing a user to establish the firmness or softness desired. Such material can include synthetic pillow stuffing such as polyester filling, or can include feathers such as goose

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or duck down. As a further embodiment, the support layer 140 can include a combination of dense foam and softer pillow stuffing. It is contemplated that different types of cushioning can be utilized for different types, sizes, and weight of objects.

FIG. 3 and FIG. 4 further illustrate the composition 110A within the temperature regulation layer 110. The composition 110A serves to control the temperature of the cooling platform 100. The cooling platform 100 can handle a range of different temperatures depending on the object in use. This can mean that the composition 110A can encompass a variety of cooling and heating compounds.

In an embodiment, the composition 110A can be activated by a wide variety of means, e.g. the addition of water. In this embodiment, the composition 110A can include ammonium nitrate and distilled water.

In another embodiment, the composition 110A can be activated by pressure, wherein the pressure of a object sitting on the cooling platform 100 activates the composition 110A, triggering an endothermic process and subsequent cooling. Upon the release of that pressure, the composition 110A undergoes a subsequent recharge, essentially the reverse of the initial reaction. The above is consistent with Le Chatelier's principle, in that, the reaction reverses upon the application or absence of pressure. In this embodiment, the composition 110A is comprised of: thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and at least fifteen percent alginic acid. The aforementioned composition 110A also provides a cooling effect for an increased duration over other known compositions.

FIG. 5 illustrates a cross-section of the channeled covering layer 150. The channeled covering layer 150 can encompass both the support 140 and temperature regulation layers 110. The channeled covering layer 150 can comprise a piece of fabric or netting, which can include, but is not limited to, plastic, nylon or cloth netting, or a micro-fiber material with a waterproof layer.

The fabric or netting can allow circulated air to penetrate and escape to the surface, effectuating the cooling process. The fabric or netting can be air tight or resistant to air penetration, to provide indirect cooling. In another embodiment, the channeled covering layer 150 can be made of a firm material, such as plastic, which retains its shape when sat upon by an object. Additionally, the channeled covering layer 150 can include padding to provide a comfortable seating surface.

In an embodiment, the channeled covering layer 150 can be easily removed via a bottom and/or zipper or any other similar means attached thereto. The channeled covering layer 150 can be made of material such that it can be easily replaced with a different top portion made of another material (and/or having different thickness) as desired. Further, in an embodiment, the channeled covering layer 150 can contain antibacterial, stain resistant, chew resistant, and/or anti flea materials.

FIG. 6 and FIG. 7 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 includes a pressure portion 110B. The pressure portion 110B allows for the ability to increase or decrease the firmness of the temperature regulation layer 110 and thus the cooling platform 100 by the addition of gases such as oxygen. This feature can be predetermined or varied as set forth below.

In an embodiment, the pressure portion 110B can include a means for inflating or deflating 115 the pressure portion 110B and the temperature regulation layer 110. The means for inflating and deflating 115 can include a variety of structures designed for air intake and out take. Often, the structures

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involved in such means include a protruding valve stem and a cap. The valve stem can be connected or coupled with a threaded portion for attachment to a mechanical or electrical pump, or can be comprised of a plastic valve allowing for human pressure inflation.

In an embodiment, the means for inflating or deflating can interconnect the pressure portions 110B held within the plurality of angled segments 120. In another embodiment, each pressure portion 110B can be provided for individually within each angled segment 120 at either a fixed pressure or established using the above mentioned interconnected means.

FIG. 8 and FIG. 9 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 is adapted to hold a composition 110A in a single angled segment 120. Therefore, the temperature regulation layer 110 becomes the single angled segment 120. The perimeter of the angled segment 120, which includes a top side and a bottom side, is sealed preventing the composition 110A from leaking.

FIGS. 10 and 11 illustrate another alternative embodiment of the invention. In this particular embodiment, the temperature regulation layer 110/120 is adapted to hold the composition 110A. In this embodiment, the temperature regulation layer 110/120 has an angled segment 120 formed as described herein. However, this embodiment does not include the channeled covering layer 150 as well as support layer 140.

FIGS. 12 and 13 illustrate another embodiment of the invention. In this embodiment, the temperature regulation layer 110 adapted to hold the composition 110A, has a plurality of angled segments 120. And as already described herein, the angled segments 120 are formed by a top side and a bottom side at a predefined distance, and by channels 130. In an embodiment, the channels 130 may completely segment the plurality of angled segments 120.

As mentioned in conjunction with the channeled covering layer 150, the temperature regulation layer 110 may be comprised of similar materials making up the channeled covering layer 150. The temperature regulation layer 110, in an embodiment, may also be plastic or of similar material, and in another embodiment be such that the composition 110A is viewable through clear material.

In use, the cooling platform 100 is able to regulate the temperate of an object. The object contacts the channeled covering layer 150 exerting pressure over the cooling platform 100. The support layer 140 is designed to be sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. As stated herein, the support layer 140 can be comprised of a wide variety of components.

Depending on the composition 110A used, the temperature regulation layer 110 transfers heat from the object. In further effectuating heat transfer, the channels 130 have at least two advantages. First, the channels 130 are designed to mix air with the cooling process between the object and the channeled covering layer 150. Second, the channels 130 substantially prevent or minimize the composition 110A from being pushed out of the angled segment 120. Obviously, in other embodiments presented herein, the angled segments 120 can be completely segmented, fully preventing such an issue. The channeled covering layer 150 also aids in effectuating heat transfer from the object by its composition of channels. Of course, the degree of such aid depends in large part on the type of material used with the cooling platform 100.

In adjusting to accommodate the object, the pressure portions 110B are used. As stated above, the pressure portions 110B can be individual and predetermined or variable and interconnected. Thus, the interconnected pressure portions

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110B can be varied through the means for inflating and deflating 115. Also, as stated herein, the channeled covering layer 150 can provide a degree of comfort and firmness depending on the material used, lending to the overall versatility of the cooling platform 100.

The invention contains a large amount of advantages. An advantage of the invention is the composition 110A. The composition 110A is able to be re-used without the need for electricity, refrigeration, additional treatments, or extraneous equipment. The advantage stems from the components within the composition 110A, which effectively keep a temperature of 3-4 degrees Fahrenheit lower than body temperature. This particular composition 110A is able to recharge after the alleviation of pressure (after the object moves). This particular advantage further allows for low-cost and eco-friendly solutions to temperature regulating and aids in the "mobility" aspect of the invention by not requiring input from other sources and by virtue of being a non-toxic substance.

Another advantage of the invention is the unique design. The design enhances and optimizes the cooling performance. 20 The channels 130 allow for a mixture of air flow between the object and the cooling platform 100, effectively cooling the object at a quicker rate. Furthermore, the presence of the predefined distance from the top and bottom of the angled segment 120, essentially prevents the dispersion of the composition 110A from the pressure the object exerts on the cooling platform 100. The overall effect increases the rate of cooling on the targeted object.

Another advantage of the invention is the interconnected pressure portions 110B. The pressure portions 110B provide the ability to increase or decrease the overall pressure of the cooling platform 100. This feature is particularly advantageous given the large variation in object weight.

While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative and not restrictive of the current invention, and that this invention is not restricted to the specific constructions and arrangements shown and described since modification can occur to those ordinarily skilled in the art.

What is claimed:

1. A cooling platform for cooling an object, the platform comprising:
 - a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;
 - a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively;
 - a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and
 - a channeled covering layer encompassing the support and temperature regulation layers.
2. The cooling platform of claim 1 wherein the plurality of angled segments include a pressure portion.
3. The cooling platform of claim 2 wherein the pressure portions are interconnected.

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4. The cooling platform of claim 3 wherein the pressure portions include a means for inflating and deflating.

5. The cooling platform of claim 4 wherein the pressure activated recharging cooling composition is comprised of:

5 thirty percent carboxymethyl cellulose;
twenty percent water;
thirty-five percent polyacrylamide; and
fifteen percent alginic acid.

6. The cooling platform of claim 1 wherein the support layer is comprised of memory foam.

7. The cooling platform of claim 1 wherein the channeled covering layer comprises a piece of fabric or net covering.

8. The cooling platform of claim 1 wherein the angled segments within the sealed perimeter are sealed.

9. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side;

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and

a channeled covering layer encompassing the support and temperature regulation layers.

10. The cooling platform of claim 9 wherein the pressure activated recharging cooling composition is comprised of:

thirty percent carboxymethyl cellulose;
twenty percent water;
thirty-five percent polyacrylamide; and
fifteen percent alginic acid.

11. The cooling platform of claim 9 wherein the temperature regulation layer includes a pressure portion within the angled segment.

12. The cooling platform of claim 11 wherein the pressure portion include a means for inflating and deflating.

13. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

14. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by con-

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tacting the top side with the bottom side at a distance lesser than the predefined distance; and
 a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

15. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively.

16. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively.

17. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and

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a channeled covering layer encompassing the support and temperature regulation layers.

18. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide.

19. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide.

20. A method of manufacturing a cooling platform for cooling an object, the method comprising the steps of:

providing a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;

providing a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively;

providing a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and

providing a channeled covering layer encompassing the support and temperature regulation layers.

* * * * *



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	05/13/2014	8720218	33378.001	8273

75398 7590 04/23/2014

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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
 (application filed on or after May 29, 2000)

The Patent Term Adjustment is 1064 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

GERARD E. PRENDERGAST, Chicago, IL;

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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273
75398	7590	04/07/2014	EXAMINER	
Musick Peeler & Garrett, LLP			ZEC, FILIP	
One Wilshire Boulevard				
Suite 2000			ART UNIT	PAPER NUMBER
Los Angeles, CA 90017			3744	
			MAIL DATE	DELIVERY MODE
			04/07/2014	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Corrected Notice of Allowability	Application No. 12/760,045	Applicant(s) PRENDERGAST, GERARD E.	
	Examiner FILIP ZEC	Art Unit 3744	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the amendment filed 9/09/2013.
 - A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. The allowed claim(s) is/are 1-4,7-11,14-17,19 and 21-26. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some *c) None of the:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. <input type="checkbox"/> Other _____. |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/FILIP ZEC/
Examiner, Art Unit 3744

Application/Control Number: 12/760,045
Art Unit: 3744

Page 2

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

- Claim 2, line 2, replace “portion” with - - portion. - - .

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FILIP ZEC whose telephone number is (571)270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JJ Swan can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 12/760,045
Art Unit: 3744

Page 3

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALLEN FLANIGAN/
Primary Examiner, Art Unit 3744
(571) 272-4910

/FILIP ZEC/
Examiner, Art Unit 3744

3/31/14

JA0017

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

75398 7590 02/06/2014
Musick Peeler & Garrett, LLP
One Wilshire Boulevard
Suite 2000
Los Angeles, CA 90017

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273

TITLE OF INVENTION: PRESSURE ACTIVATED RECHARGING COOLING PLATFORM

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	05/06/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
ZEC, FILIP	3744	062-259300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).	2. For printing on the patent front page, list (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
<input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. <input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.	1 <u>MUSICK PEELER, LLP</u> 2 <u>REID DAMMANN</u> 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

THE GREEN PET SHOP ENTERPRISES, LLC

NORTHBROOK, ILLINOIS

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:

- Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- Applicant certifying micro entity status. See 37 CFR 1.29
 Applicant asserting small entity status. See 37 CFR 1.27
 Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature

Date 3/31/2014

Typed or printed name REID DAMMANN

Registration No. 57227

Electronic Patent Application Fee Transmittal				
Application Number:	12760045			
Filing Date:	14-Apr-2010			
Title of Invention:	PRESSURE ACTIVATED RECHARGING			
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST			
Filer:	Reid Eric Dammann			
Attorney Docket Number:	33378.001			
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	2501	1	480	480
Extension-of-Time:	JA0019			

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				480

Electronic Acknowledgement Receipt

EFS ID:	18628399
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	PRESSURE ACTIVATED RECHARGING
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	33378.001
Receipt Date:	31-MAR-2014
Filing Date:	14-APR-2010
Time Stamp:	15:27:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$480
RAM confirmation Number	1975
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part	Pages
				1A0021	(if appl.)

1	Issue Fee Payment (PTO-85B)	TGPSFEES.pdf	87179 f6164e27e8dad2102824dab837dd131745f 9b3f6	no	1
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Warnings:**Information:**

2	Fee Worksheet (SB06)	fee-info.pdf	29677 60d3e3900523ac070d9bc4d9124c73e0d4 d9c63a	no	2
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Warnings:**Information:**

Total Files Size (in bytes):	116856
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273
75398	7590	03/21/2014	EXAMINER	
Musick Peeler & Garrett, LLP			ZEC, FILIP	
One Wilshire Boulevard				
Suite 2000			ART UNIT	PAPER NUMBER
Los Angeles, CA 90017			3744	
			MAIL DATE	DELIVERY MODE
			03/21/2014	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Supplemental Notice of Allowability	Application No. 12/760,045	Applicant(s) PRENDERGAST, GERARD E.	
	Examiner FILIP ZEC	Art Unit 3744	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the amendment filed 9/09/2013.
 - A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. The allowed claim(s) is/are 1-4,7-11,14-17,19 and 21-26. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some *c) None of the:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

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5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
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6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. <input type="checkbox"/> Other _____. |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/FILIP ZEC/
Examiner, Art Unit 3744

Application/Control Number: 12/760,045
Art Unit: 3744

Page 2

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: The prior art does not anticipate nor render obvious the combination set forth in the independent claim, and specifically does not show a cooling platform for cooling a pet or an object comprising a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively. U.S. Patent 4,064,835 to Rabenbauer teaches an air conditioned pet bed, U.S. Patent 7,036,162 to Gatten teaches a cooling mattress for sunbathing and U.S. Patent 7,021,848 to Gruenbacher et al. teaches semi-enclosed applicator having temperature changing element, but they do not teach, alone or in combination, the key claimed technical features, as explained above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FILIP ZEC whose telephone number is (571)270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JJ Swan can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 12/760,045
Art Unit: 3744

Page 3

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/ALLEN FLANIGAN/
Primary Examiner, Art Unit 3744
(571) 272-4910

/FILIP ZEC/
Examiner, Art Unit 3744

3/13/2013

JA0026



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
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www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

75398 7590 02/06/2014
Musick Peeler & Garrett, LLP
 One Wilshire Boulevard
 Suite 2000
 Los Angeles, CA 90017

EXAMINER	
ZEC, FILIP	
ART UNIT	PAPER NUMBER
3744	

DATE MAILED: 02/06/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273

TITLE OF INVENTION: PRESSURE ACTIVATED RECHARGING COOLING PLATFORM

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	05/06/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

75398 7590 02/06/2014
Musick Peeler & Garrett, LLP
One Wilshire Boulevard
Suite 2000
Los Angeles, CA 90017

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273

TITLE OF INVENTION: PRESSURE ACTIVATED RECHARGING COOLING PLATFORM

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0	\$0	\$480	05/06/2014
EXAMINER	ART UNIT	CLASS-SUBCLASS				
ZEC, FILIP	3744	062-259300				

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

"Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- A check is enclosed.
- Payment by credit card. Form PTO-2038 is attached.
- The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- Applicant certifying micro entity status. See 37 CFR 1.29
- NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- Applicant asserting small entity status. See 37 CFR 1.27
- NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- Applicant changing to regular undiscounted fee status.
- NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273
75398	7590	02/06/2014	EXAMINER	
Musick Peeler & Garrett, LLP One Wilshire Boulevard Suite 2000 Los Angeles, CA 90017				ZEC, FILIP
		ART UNIT		PAPER NUMBER
		3744		

DATE MAILED: 02/06/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 806 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 806 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 12/760,045	Applicant(s) PRENDERGAST, GERARD E.	
	Examiner FILIP ZEC	Art Unit 3744	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the amendment filed 9/09/2013.
 - A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. The allowed claim(s) is/are 1-4,7-11,14-17,19 and 21-26. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some *c) None of the:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 7. <input type="checkbox"/> Other _____. |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. | |

/FILIP ZEC/
Examiner, Art Unit 3744

Application/Control Number: 12/760,045
Art Unit: 3744

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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with D. Reid on 1/17/2014.

The application has been amended as follows:

- Claim 1, line 10, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 11, line 8, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 17, line 7, delete “a pressure activated recharging cooling composition” and replace with - - a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively - -.
- Claim 19, line 9, delete “a pressure activated recharging cooling composition” and replace with - - a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively - -.

Application/Control Number: 12/760,045
Art Unit: 3744

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- Claim 21, line 6, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 22, line 8, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 23, line 8, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 24, line 6, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 25, line 8, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.
- Claim 26, line 9, delete “composition activated and deactivated” and replace with - - composition endothermically activated and endothermically deactivated - -.

2. The following is an examiner’s statement of reasons for allowance: The prior art does not anticipate nor render obvious the combination set forth in the independent claim, and specifically does not show a refrigerator having a cooling platform for cooling a pet or an object comprising a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging composition endothermically activated and endothermically deactivated upon the application and release of pressure, respectively. U.S. Patent 4,064,835 to Rabenbauer teaches an air conditioned pet bed, U.S. Patent 7,036,162 to Gatten teaches a cooling mattress for sunbathing and U.S. Patent 7,021,848 to Gruenbacher et al. teaches semi-enclosed applicator having temperature changing element, but they do not teach, alone or in combination, the key claimed technical features, as explained above.

Application/Control Number: 12/760,045
Art Unit: 3744

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FILIP ZEC whose telephone number is (571)270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JJ Swan can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALLEN FLANIGAN/
Primary Examiner, Art Unit 3744
(571) 272-4910

/FILIP ZEC/
Examiner, Art Unit 3744

1/23/14

JA0034

Notice of References Cited		Application/Control No.	Applicant(s)/Patent Under Reexamination PRENDERGAST, GERARD E.	
		Examiner FILIP ZEC	Art Unit 3744	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,021,848 B1	04-2006	Gruenbacher et al.	401/1
*	B	US-7,028,344 B2	04-2006	Toth, Gregory T.	2/413
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EAST Search History**EAST Search History (Prior Art)**

< This search history is empty>

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	683	pressure activat\$3 recharge\$3 cool\$3 composition temperature regulat\$3 layer deactivat\$3 application releas\$3	US-PGPUB; USPAT; UPAD	AND	OFF	2014/01/22 16:36
L2	0	pressure activat\$3 recharge\$3 cool\$3 composition temperature regulat\$3 layer deactivat\$3 application releas\$3	US-PGPUB; USPAT; UPAD	SAME	OFF	2014/01/22 16:37

1/22/2014 4:37:42 PM**C:\Users\fzec\Documents\EAST\Workspaces\12760045.wsp****JA0036**

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12760045	PRENDERGAST, GERARD E.
	Examiner	Art Unit
	FILIP ZEC	3744

CPC Combination Sets					
Symbol	Type	Set	Ranking	Version	

/FILIP ZEC/ Examiner.Art Unit 3744	1/23/2014	Total Claims Allowed:
(Assistant Examiner)	(Date)	20
/ALLEN FLANIGAN/ Primary Examiner.Art Unit 3744	01/27/2014	O.G. Print Claim(s) O.G. Print Figure
(Primary Examiner)	(Date)	1 and 15 3 and 4

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12760045	PRENDERGAST, GERARD E.
	Examiner	Art Unit
	FILIP ZEC	3744

/FILIP ZEC/ Examiner.Art Unit 3744	1/23/2014	Total Claims Allowed:
(Assistant Examiner)	(Date)	20
/ALLEN FLANIGAN/ Primary Examiner.Art Unit 3744	01/27/2014	O.G. Print Claim(s) O.G. Print Figure
(Primary Examiner)	(Date)	1 and 15 3 and 4

Issue Classification	Application/Control No.				Applicant(s)/Patent Under Reexamination			
	12760045				PRENDERGAST, GERARD E.			
	Examiner				Art Unit			
	FILIP ZEC				3744			

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA				<input type="checkbox"/> T.D.				<input type="checkbox"/> R.1.47			
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	13	17												
2	2	-	18												
3	3	14	19												
4	4	-	20												
-	5	15	21												
-	6	16	22												
5	7	17	23												
6	8	18	24												
7	9	19	25												
8	10	20	26												
9	11														
-	12														
-	13														
10	14														
11	15														
12	16														

/FILIP ZEC/ Examiner.Art Unit 3744 (Assistant Examiner)		1/23/2014 (Date)	Total Claims Allowed: 20	
/ALLEN FLANIGAN/ Primary Examiner.Art Unit 3744 (Primary Examiner)		01/27/2014 (Date)	O.G. Print Claim(s) 1 and 15	O.G. Print Figure 3 and 4

OK TO ENTER: /F.Z./

02/03/2014 **Amendments to the Specification**

Applicant is providing a substitute specification (and clean version) to incorporate pages numbers in accordance with the Examiner's suggestion and the amendment of the title of the invention to: **PRESSURE ACTIVATED RECHARGING COOLING PLATFORM**

<i>Index of Claims</i>		Application/Control No.	Applicant(s)/Patent Under Reexamination
		12760045	PRENDERGAST, GERARD E.
Examiner		Art Unit	
FILIP ZEC		3744	

<input checked="" type="checkbox"/>	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
CLAIM		DATE					
Final	Original	07/24/2013	01/11/2014	01/23/2014			
1	1	✓	✓	=			
2	2	✓	✓	=			
3	3	✓	✓	=			
4	4	✓	✓	=			
-	5	✓	-	-			
-	6	✓	-	-			
5	7	✓	✓	=			
6	8	✓	✓	=			
7	9	✓	✓	=			
8	10	✓	✓	=			
9	11	✓	✓	=			
-	12	✓	-	-			
-	13	✓	-	-			
10	14	✓	✓	=			
11	15	✓	✓	=			
12	16	✓	✓	=			
13	17	✓	✓	=			
-	18	✓	-	-			
14	19	✓	✓	=			
-	20	✓	-	-			
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16	22		✓	=			
17	23		✓	=			
18	24		✓	=			
19	25		✓	=			
20	26		✓	=			

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S25	472	carboxymethyl near cellulose same water same polyacrylamide same alginic near acid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:47
S26	318	S25 and cool\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:47
S27	3	S25 same cool\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:49
S28	0	S25 same absorb\$3 adj heat	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:50
S29	5	S25 and absorb\$3 adj heat	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:50
S30	6385	"62".clas. and cool\$3 same pressur\$4 same (activat\$3 or charg\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:56
S31	238	"62".clas. and cool\$3 same pressur\$4 same (activat\$3 or charg\$3) same composition	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:56
S32	194	"62".clas. and cool\$3 same pressur\$4	US-PGPUB;	OR	OFF	2014/01/09

JA0042

Case: 1:15-cv-01138 Document #: 54 Filed: 01/20/16 Page 44 of 195 PageID #:321

		same (activat\$3 or charg\$3) same gel	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB			18:57
S33	3	62/457.1-457.7.ccls. and cool\$3 same pressur\$4 same (activat\$3 or charg\$3) same gel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 18:59
S34	8397	cool\$3 same pressur\$4 same (activat\$3 or charg\$3) same gel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:00
S35	67	cool\$3 same pressur\$4 same recharge\$3 same gel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:00
S36	1	cool\$3 same pressur\$4 same recharge\$3 same gel same elastic\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:01
S37	2	cool\$3 same pressur\$4 same recharge\$3 same gel and elastic\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:01
S38	117	cool\$3 same pressur\$4 same recharge\$3 and thermoplastic\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:02
S39	1112	"62".clas. and thermoplastic\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2014/01/09 19:03
S40	62	"62".clas. and thermoplastic\$3 and pressur\$3 same activat\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2014/01/09 19:04

JA0043

			IBM TDB			
S41	52	"62".clas. and thermoplastic\$3 and pressur\$3 same activat\$3 and cool\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 19:05
S42	52	"62".clas. and thermoplastic\$3 and pressur\$3 same (actuat\$3 or recharge\$3 or activat\$3) same cool\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 19:08
S43	1	"62".clas. and ammonium adj nitrite same pressur\$3 same cool\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 20:07
S44	6	"62".clas. and ammonium adj nitrite same pressur\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 20:08
S45	47	"62".clas. and ammonium adj nitrate same pressur\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 20:08
S46	24	ammonium adj nitrate same recharge\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/01/09 20:09
S47	0	carboxymethyl cellulose water polyacrylamide alginic acid coolant composition	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2014/01/10 18:03
S48	476	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerate\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2014/01/10 18:04
S49	10	carboxymethyl cellulose water polyacrylamide alginic acid same (cool\$3 or refrigerate\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO;	SAME	OFF	2014/01/10 18:05

JA0044

			JPO; DERWENT; IBM_TDB			
S50	359	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerera\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:06
S51	5	carboxymethyl cellulose water polyacrylamide alginic acid same (cool\$3 or refrigerera\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:06
S52	1	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerera\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:08
S53	1	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerera\$4 or heat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2014/01/10 18:08
S54	1	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerera\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	SAME	OFF	2014/01/10 18:10
S55	284	carboxymethyl cellulose water polyacrylamide alginic acid and (cool\$3 or refrigerera\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:10
S56	52	carboxymethyl cellulose water polyacrylamide alginic acid and refrigerera\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:11
S57	11	carboxymethyl cellulose water polyacrylamide alginic acid composition	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	WITH	OFF	2014/01/10 18:17
S58	28	water polyacrylamide and "62".clas.	US-PGPUB; USPAT;	WITH	OFF	2014/01/10 21:09

JA0045

			USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB				
S59	29	("20030200598" "4397045" "4425917" "4815144" "4854319" "4908248" "5058210" "5517691" "5605144" "5630230" "5755110" "5785980" "5950234" "6178562" "6269654" "6698510" "6792624" "6817039" "6904617").PN. OR ("7028344").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/01/10 21:32	

1/11/2014 11:00:57 PM

C:\Users\fzec\Documents\EAST\Workspaces\12760045.wsp

JA0046

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12760045	PRENDERGAST, GERARD E.
	Examiner	Art Unit
	FILIP ZEC	3744

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
62	259.3, 457.2, 529	7/22/2013	FZ
		updated 1/10/14	FZ

SEARCH NOTES		
Search Notes	Date	Examiner
See EAST search history notes	7/24/2013	FZ
	updated 1/10/14	FZ

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
all searched above	text search of relevant claim language of full search above	1/22/2014	FZ

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273
75398	7590	09/25/2013	EXAMINER	
Musick Peeler & Garrett, LLP			ZEC, FILIP	
One Wilshire Boulevard				
Suite 2000			ART UNIT	PAPER NUMBER
Los Angeles, CA 90017			3744	
			MAIL DATE	DELIVERY MODE
			09/25/2013	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	12/760,045	PRENDERGAST, GERARD E.	
	Examiner	Art Unit	
	FILIP ZEC	3744	

All participants (applicant, applicant's representative, PTO personnel):

(1) FILIP ZEC. (3) L. Wright.

(2) R. Dammann. (4) _____.

Date of Interview: 05 September 2013.

Type: Telephonic Video Conference
 Personal [copy given to: applicant applicant's representative]

Exhibit shown or demonstration conducted: Yes No.
If Yes, brief description: _____.

Issues Discussed 101 112 102 103 Others

(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 7 and 14.

Identification of prior art discussed: See Continuation Sheet.

Substance of Interview

(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

See Continuation Sheet.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Attachment

/Filip Zec/ Examiner, Art Unit 3744	/J J Swann/ Supervisory Patent Examiner, Art Unit 3744
--	---

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Identification of prior art discussed:

Macromolecular Bioscience paper "Elastic, Superporous Hydrogel Hybrids of Polyacrylamide and Sodium Alginate" by Omidian et al. (Omidian).

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The applicant suggested changing the title of the application to "A pressure activated recharging composition for a cooling pet bed", which the Examiner agreed to. The applicant also agreed to amend the claims per Examiner's suggestion to circumvent the current 112(2) rejection. Further, the applicant suggested removing the limitation "adapted to..." from claims 17 and 19. The applicant questioned the motivation behind combining Omidian with the Gatten, stating that the motivation behind the current invention being claimed is to provide pressure actuated composition, while Omidian does not disclose said use. The Examiner corrected the original motivational statement from Omidian, explicitly teaching the composition as claimed which, in its swollen state (page 709, Conclusion section), is usefull as a highly elastic hydrogel hybrid in an industrial application (page 710, first column, first paragraph, last line). The applicant stated that the stretching/unloading of the swollen elastic hydrogel hybrid which can be repeated numerous times is not the same as actually being stretched numerous times, for instance, as padding below a platform upon which an object or a being is placed. The Examiner, however, stated that the motivation, as provided by Omidian, wherein the material can be usefull as an elastomer in its fully swollen state where it can be stretched 2 to 3 times its original length. The Examiner also asked about a proposed amendment during the interview, as the applicant was referring to "amended claims" while discussing the current rejection, however, said amendment is still being developed.

Electronic Patent Application Fee Transmittal				
Application Number:	12760045			
Filing Date:	14-Apr-2010			
Title of Invention:	COOLING PLATFORM			
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST			
Filer:	Reid Eric Dammann			
Attorney Docket Number:	33378.001			
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Independent Claims in Excess of 3	2201	6	210	1260
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
JA0052				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				1260

Electronic Acknowledgement Receipt

EFS ID:	16863793
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	COOLING PLATFORM
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	33378.001
Receipt Date:	16-SEP-2013
Filing Date:	14-APR-2010
Time Stamp:	15:43:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$1260
RAM confirmation Number	2650
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part	Pages
				1A0054	if appl.)

1	Fee Worksheet (SB06)	fee-info.pdf	29868 d693a1c592c3cf86fb9151a7ea70ad3df77 7650	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			29868		
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p>New Applications Under 35 U.S.C. 111 If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p>National Stage of an International Application under 35 U.S.C. 371 If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p>New International Application Filed with the USPTO as a Receiving Office If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

For: COOLING PLATFORM

Application No. 12/760,045

Applicant: GERARD E. PRENDERGAST

Filed: 04-14-2010

Art Unit: 3744

Docket No. 33378.001

Customer No. 75398

Confirmation No. 8273

RESPONSE TO A NON- FINAL OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action dated July 31, 2013, please consider the amendments to the claims and the following remarks:

Amendments to the Claims begin on page 2;

Amendments to the Specification (Substitute Specification and Clean Version)

begin on page 11;

Interview Summary begins on page 13;

Remarks begin on page 15; and

Conclusion begins on page 23.

Amendments to the Claims

CLAIMS

What is Claimed:

1. (currently amended) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer ~~adapted to hold a composition~~, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and

a channeled covering layer encompassing the support and temperature regulation layers.

2. (original) The cooling platform of claim 1 wherein the plurality of angled segments include a pressure portion

3. (original) The cooling platform of claim 2 wherein the pressure portions are interconnected.

4. (original) The cooling platform of claim 3 wherein the pressure portions include a means for inflating and deflating.

5. (cancelled).

6. (cancelled).

7. (currently amended) The cooling platform of claim [[5]] 4 wherein the pressure activated recharging cooling composition is comprised of:

thirty percent carboxmethyl cellulose;

twenty percent water;

thirty-five percent polyacrylamide; and

fifteen percent alginic acid.

8. (original) The cooling platform of claim 1 wherein the support layer is comprised of memory foam.

9. (original) The cooling platform of claim 1 wherein the channeled covering layer comprises a piece of fabric or net covering.

10. (original) The cooling platform of claim 1 wherein the angled segments within the sealed perimeter are sealed.

11. (currently amended) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer ~~adapted to hold a composition~~, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side;

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and

a channeled covering layer encompassing the support and temperature regulation layers.

12. (cancelled).

13. (cancelled).

14. (currently amended) The cooling platform of claim [[12]] 11 wherein the pressure activated recharging cooling composition is comprised of:

thirty percent carboxmethyl cellulose;
twenty percent water;
thirty-five percent polyacrylamide; and
fifteen percent alginic acid.

15. (original) The cooling platform of claim 11 wherein the temperature regulation layer includes a pressure portion within the angled segment.

16. (original) The cooling platform of claim 15 wherein the pressure portion include a means for inflating and deflating.

17. (currently amended) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer ~~adapted to hold a composition~~, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a pressure activated recharging cooling composition, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

18. (cancelled).

19. (currently amended) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer ~~adapted to hold a composition~~, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and

a pressure activated recharging cooling composition, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

20. (cancelled).

21. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and
a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively.

22. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and
a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively.

23. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the

temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide.

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and

a channeled covering layer encompassing the support and temperature regulation layers.

24. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide.

25. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and

a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively, the pressure activated recharging cooling composition comprised of water and polyacrylamide.

26. (new) A method of manufacturing a cooling platform for cooling an object, the method comprising the steps of:

providing a temperature regulation layer, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;

providing a pressure activated recharging cooling composition within the temperature regulation layer, the pressure activated recharging cooling composition activated and deactivated upon the application and release of pressure, respectively;

providing a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of an elastic material capable of deforming and withstanding collapse; and

providing a channeled covering layer encompassing the support and temperature regulation layers.

Amendments to the Specification

Applicant is providing a substitute specification (and clean version) to incorporate pages numbers in accordance with the Examiner's suggestion and the amendment of the title of the invention to: **PRESSURE ACTIVATED RECHARGING COOLING PLATFORM**

Substitute Specification (and Clean Version)

Substitute Specification

PRESSURE ACTIVATED RECHARGING COOLING PLATFORM

BACKGROUND

1) Field of the Invention

The invention relates to temperature controlled platforms, particularly, cooling platforms for animals.

2) Discussion of the Related Art

Pet beds serve as a place to rest or sleep, for pets such as cats and dogs. Many times, depending on the application, these pet beds are directed towards cooling or heating pets. These beds can be used during post-surgery recovery, dysplasia, or post-chemotherapy. Generally, these pet beds aid in the comfort and safety of the pet.

Many pet beds are known to have cooling mechanisms. Some pet beds provide a centralized cooling plate with no mechanism to circulate. These pet beds are electrically connected to a power source. Power sources often times fail, negating the "portable" aspect of a product. Further, such systems require heavy and complex equipment, and are not typically portable or user friendly.

There are other pet beds available which use alternative or "non-electric" means to cool a pet. These pet beds generally use ice packs. However, these ice packs eventually melt and need to be replaced. Accordingly, it is desirable to provide an improved cooling bed for pets.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described by way of example with reference to the accompanying drawings wherein:

Figure 1 illustrates a top angled perspective of a cooling platform.

Figure 2 illustrates a top view of a temperature regulation layer of the cooling platform.

Figure 3 illustrates a cross-sectional view of the cooling platform.

Figure 4 illustrates a detailed cross-sectional view of the cooling platform.

Figure 5 illustrates a cross-sectional view of a channeled covering layer of the cooling platform.

Figure 6 illustrates a detailed cross-sectional view of an alternative embodiment of the cooling platform.

Figure 7 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 8 illustrates a top angled perspective of an alternative embodiment of the cooling platform.

Figure 9 illustrates a cross-sectional perspective of the alternative embodiment of the cooling platform.

Figure 10 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 11 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 12 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 13 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is now described with reference to figures where like reference numbers indicate identical or functionally similar elements. While specific configurations and arrangements are discussed, it should be understood that this is done for illustrative purposes only. A person skilled in the relevant art will recognize that other configurations and arrangements can be used without departing from the spirit and scope of the invention.

The invention described herein is multilayered. Each layer, in an embodiment, is bonded to the next layer in some fashion, in that, each layer is comprised of a first and a second side and is bonded to the respective side accordingly. As such, the term "bonded" refers to the joining, adhering, affixing, connecting, attaching, threading or the like, through chemical, mechanical or electrical avenues, of at least two elements of a cooling platform, such that the elements tend to be and remain bonded during normal use conditions of the cooling platform.

FIG. 1 illustrates a cooling platform 100. The cooling platform 100 is comprised of a temperature regulation layer 110 (illustrated in FIG. 2), a support layer 140 (illustrated in FIG. 3), and a channeled covering layer 150.

FIG. 2 illustrates the temperature regulation layer 110 in more detail. The temperature regulation layer 110 is adapted to hold a composition 110A (illustrated in FIG. 3) and provides temperature regulation to the cooling platform 100. The temperature regulation layer 110 has an angled segment 120, which includes a top side

and a bottom side (illustrated FIG. 8 and FIG 9). The angled segment 120 is formed by channels 130 and includes a sealed perimeter.

In an embodiment, and as illustrated in FIG. 2, the temperature regulation layer 110 includes a plurality of angled segments 120 formed by a plurality of channels 130. The channels 130 effectively space the top and bottom sides of each angled segment 120 at a predefined distance. In an embodiment, the predefined distance can equal zero, thus completely forming each angled segment 120 and cutting off any interconnection or communication therein.

In another embodiment, that predefined distance can be measured depending on the object using the cooling platform 100. In this embodiment, the predefined distance allows for interconnection between the angled segments 120 of the composition 110A (including pressure portions 110B as seen in FIG. 6 and FIG. 7). In this embodiment, the interconnection would apply to those angled segments 120 within the perimeter of the temperature regulation layer 110, as the perimeter is sealed.

The cooling platform 100 is adapted to provide cooling to a wide variety of objects. As used herein, the term "object" can mean a variety of things including but not limited to domestic animals, such as cats and dogs. The use of the cooling platform 100 can extend to human use in vehicles or similar circumstances calling for such regulation. Generally, the cooling platform 100 can be used for anything that needs or requires either heat, cool or temperature regulation.

FIG. 3 and FIG. 4 illustrate a cross-section of the cooling platform 100, which includes the support layer 140. The support layer 140 is substantially bonded to the

bottom side of the temperature regulation layer 110. The support layer 140 comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object.

In an embodiment, the support layer 140 can be made from polyurethane foam, elastomer foam, memory foam, or other suitable material. In another embodiment, the support layer 140 is made of an orthopedic foam, of a consistency designed to protect joints and provide appropriate support to the skeletal system.

In an embodiment, the support layer 140 can include soft, pliable, and removable stuffing material to provide cushioning, allowing a user to establish the firmness or softness desired. Such material can include synthetic pillow stuffing such as polyester filling, or can include feathers such as goose or duck down. As a further embodiment, the support layer 140 can include a combination of dense foam and softer pillow stuffing. It is contemplated that different types of cushioning can be utilized for different types, sizes, and weight of objects.

FIG. 3 and FIG. 4 further illustrate the composition 110A within the temperature regulation layer 110. The composition 110A serves to control the temperature of the cooling platform 100. The cooling platform 100 can handle a range of different temperatures depending on the object in use. This can mean that the composition 110A can encompass a variety of cooling and heating compounds.

In an embodiment, the composition 110A can be activated by a wide variety of means, e.g. the addition of water. In this embodiment, the composition 110A can include ammonium nitrate and distilled water.

In another embodiment, the composition 110A can be activated by pressure, wherein the pressure of a object sitting on the cooling platform 100 activates the composition 110A, triggering an endothermic process and subsequent cooling. Upon the release of that pressure, the composition 110A undergoes a subsequent recharge, essentially the reverse of the initial reaction. The above is consistent with Le Chatelier's principle, in that, the reaction reverses upon the application or absence of pressure. In this embodiment, the composition 110A is comprised of: thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and at least fifteen percent alginic acid. The aforementioned composition 110A also provides a cooling effect for an increased duration over other known compositions.

FIG. 5 illustrates a cross-section of the channeled covering layer 150. The channeled covering layer 150 can encompass both the support 140 and temperature regulation layers 110. The channeled covering layer 150 can comprise a piece of fabric or netting, which can include, but is not limited to, plastic, nylon or cloth netting, or a micro-fiber material with a waterproof layer.

The fabric or netting can allow circulated air to penetrate and escape to the surface, effectuating the cooling process. The fabric or netting can be air tight or resistant to air penetration, to provide indirect cooling. In another embodiment, the channeled covering layer 150 can be made of a firm material, such as plastic, which retains its shape when sat upon by an object. Additionally, the channeled covering layer 150 can include padding to provide a comfortable seating surface.

In an embodiment, the channeled covering layer 150 can be easily removed via a bottom and/or zipper or any other similar means attached thereto. The channeled covering layer 150 can be made of material such that it can be easily replaced with a different top portion made of another material (and/or having different thickness) as desired. Further, in an embodiment, the channeled covering layer 150 can contain antibacterial, stain resistant, chew resistant, and/or anti flea materials.

FIG. 6 and FIG. 7 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 includes a pressure portion 110B. The pressure portion 110B allows for the ability to increase or decrease the firmness of the temperature regulation layer 110 and thus the cooling platform 100 by the addition of gases such as oxygen. This feature can be predetermined or varied as set forth below.

In an embodiment, the pressure portion 110B can include a means for inflating or deflating 115 the pressure portion 110B and the temperature regulation layer 110. The means for inflating and deflating 115 can include a variety of structures designed for air intake and out take. Often, the structures involved in such means include a protruding valve stem and a cap. The valve stem can be connected or coupled with a threaded portion for attachment to a mechanical or electrical pump, or can be comprised of a plastic valve allowing for human pressure inflation.

In an embodiment, the means for inflating or deflating can interconnect the pressure portions 110B held within the plurality of angled segments 120. In another embodiment, each pressure portion 110B can be provided for individually within each

angled segment 120 at either a fixed pressure or established using the above mentioned interconnected means.

FIG. 8 and FIG. 9 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 is adapted to hold a composition 110A in a single angled segment 120. Therefore, the temperature regulation layer 110 becomes the single angled segment 120. The perimeter of the angled segment 120, which includes a top side and a bottom side, is sealed preventing the composition 110A from leaking.

FIG. 10 and 11 illustrate another alternative embodiment of the invention. In this particular embodiment, the temperature regulation layer 110/120 is adapted to hold the composition 110A. In this embodiment, the temperature regulation layer 110/120 has an angled segment 120 formed as described herein. However, this embodiment does not include the channeled covering layer 150 as well as support layer 140.

FIG. 12 and 13 illustrate another embodiment of the invention. In this embodiment, the temperature regulation layer 110 adapted to hold the composition 110A, has a plurality of angled segments 120. And as already described herein, the angled segments 120 are formed by a top side and a bottom side at a predefined distance, and by channels 130. In an embodiment, the channels 130 may completely segment the plurality of angled segments 120.

As mentioned in conjunction with the channeled covering layer 150, the temperature regulation layer 110 may be comprised of similar materials making up the channeled covering layer 150. The temperature regulation layer 110, in an embodiment, may also be plastic or of similar material, and in another embodiment be such that the composition 110A is viewable through clear material.

In use, the cooling platform 100 is able to regulate the temperate of an object. The object contacts the channeled covering layer 150 exerting pressure over the cooling platform 100. The support layer 140 is designed to be sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. As stated herein, the support layer 140 can be comprised of a wide variety of components.

Depending on the composition 110A used, the temperature regulation layer 110 transfers heat from the object. In further effectuating heat transfer, the channels 130 have at least two advantages. First, the channels 130 are designed to mix air with the cooling process between the object and the channeled covering layer 150. Second, the channels 130 substantially prevent or minimize the composition 110A from being pushed out of the angled segment 120. Obviously, in other embodiments presented herein, the angled segments 120 can be completely segmented, fully preventing such an issue. The channeled covering layer 150 also aids in effectuating heat transfer from the object by its composition of channels. Of course, the degree of such aid depends in large part on the type of material used with the cooling platform 100.

In adjusting to accommodate the object, the pressure portions 110B are used. As stated above, the pressure portions 110B can be individual and predetermined or variable and interconnected. Thus, the interconnected pressure portions 110B can be varied through the means for inflating and deflating 115. Also, as stated herein, the channeled covering layer 150 can provide a degree of comfort and firmness depending on the material used, lending to the overall versatility of the cooling platform 100.

The invention contains a large amount of advantages. An advantage of the invention is the composition 110A. The composition 110A is able to be re-used without the need for electricity, refrigeration, additional treatments, or extraneous equipment. The advantage stems from the components within the composition 110A, which effectively keep a temperature of 3-4 degrees Fahrenheit lower than body temperature. This particular composition 110A is able to recharge after the alleviation of pressure (after the object moves). This particular advantage further allows for low-cost and eco-friendly solutions to temperature regulating and aids in the "mobility" aspect of the invention by not requiring input from other sources and by virtue of being a non-toxic substance.

Another advantage of the invention is the unique design. The design enhances and optimizes the cooling performance. The channels 130 allow for a mixture of air flow between the object and the cooling platform 100, effectively cooling the object at a quicker rate. Furthermore, the presence of the predefined distance from the top and bottom of the angled segment 120, essentially prevents the dispersion of the composition 110A from the pressure the object exerts on the cooling platform 100. The overall effect increases the rate of cooling on the targeted object.

Another advantage of the invention is the interconnected pressure portions 110B. The pressure portions 110B provide the ability to increase or decrease the overall pressure of the cooling platform 100. This feature is particularly advantageous given the large variation in object weight.

While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative and not restrictive of the current invention, and that this invention is not restricted to the specific constructions and arrangements shown and described since modification can occur to those ordinarily skilled in the art.

ABSTRACT

A cooling platform for cooling an object is provided. The cooling platform comprises a temperature regulation, a support layer, and a channeled covering layer. The temperature regulation layer is adapted to hold a composition. The temperature regulation layer has a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance. The support layer is substantially bonded to the bottom side of the temperature regulation layer and is comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. The channeled covering layer encompasses the support and temperature regulation layers.

Clean Version

PRESSURE ACTIVATED RECHARGING COOLING PLATFORM

BACKGROUND

1) Field of the Invention

The invention relates to temperature controlled platforms, particularly, cooling platforms for animals.

2) Discussion of the Related Art

Pet beds serve as a place to rest or sleep, for pets such as cats and dogs. Many times, depending on the application, these pet beds are directed towards cooling or heating pets. These beds can be used during post-surgery recovery, dysplasia, or post-chemotherapy. Generally, these pet beds aid in the comfort and safety of the pet.

Many pet beds are known to have cooling mechanisms. Some pet beds provide a centralized cooling plate with no mechanism to circulate. These pet beds are electrically connected to a power source. Power sources often times fail, negating the "portable" aspect of a product. Further, such systems require heavy and complex equipment, and are not typically portable or user friendly.

There are other pet beds available which use alternative or "non-electric" means to cool a pet. These pet beds generally use ice packs. However, these ice packs eventually melt and need to be replaced. Accordingly, it is desirable to provide an improved cooling bed for pets.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described by way of example with reference to the accompanying drawings wherein:

Figure 1 illustrates a top angled perspective of a cooling platform.

Figure 2 illustrates a top view of a temperature regulation layer of the cooling platform.

Figure 3 illustrates a cross-sectional view of the cooling platform.

Figure 4 illustrates a detailed cross-sectional view of the cooling platform.

Figure 5 illustrates a cross-sectional view of a channeled covering layer of the cooling platform.

Figure 6 illustrates a detailed cross-sectional view of an alternative embodiment of the cooling platform.

Figure 7 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 8 illustrates a top angled perspective of an alternative embodiment of the cooling platform.

Figure 9 illustrates a cross-sectional perspective of the alternative embodiment of the cooling platform.

Figure 10 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 11 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 12 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 13 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is now described with reference to figures where like reference numbers indicate identical or functionally similar elements. While specific configurations and arrangements are discussed, it should be understood that this is done for illustrative purposes only. A person skilled in the relevant art will recognize that other configurations and arrangements can be used without departing from the spirit and scope of the invention.

The invention described herein is multilayered. Each layer, in an embodiment, is bonded to the next layer in some fashion, in that, each layer is comprised of a first and a second side and is bonded to the respective side accordingly. As such, the term "bonded" refers to the joining, adhering, affixing, connecting, attaching, threading or the like, through chemical, mechanical or electrical avenues, of at least two elements of a cooling platform, such that the elements tend to be and remain bonded during normal use conditions of the cooling platform.

FIG. 1 illustrates a cooling platform 100. The cooling platform 100 is comprised of a temperature regulation layer 110 (illustrated in FIG. 2), a support layer 140 (illustrated in FIG. 3), and a channeled covering layer 150.

FIG. 2 illustrates the temperature regulation layer 110 in more detail. The temperature regulation layer 110 is adapted to hold a composition 110A (illustrated in FIG. 3) and provides temperature regulation to the cooling platform 100. The temperature regulation layer 110 has an angled segment 120, which includes a top side

and a bottom side (illustrated FIG. 8 and FIG 9). The angled segment 120 is formed by channels 130 and includes a sealed perimeter.

In an embodiment, and as illustrated in FIG. 2, the temperature regulation layer 110 includes a plurality of angled segments 120 formed by a plurality of channels 130. The channels 130 effectively space the top and bottom sides of each angled segment 120 at a predefined distance. In an embodiment, the predefined distance can equal zero, thus completely forming each angled segment 120 and cutting off any interconnection or communication therein.

In another embodiment, that predefined distance can be measured depending on the object using the cooling platform 100. In this embodiment, the predefined distance allows for interconnection between the angled segments 120 of the composition 110A (including pressure portions 110B as seen in FIG. 6 and FIG. 7). In this embodiment, the interconnection would apply to those angled segments 120 within the perimeter of the temperature regulation layer 110, as the perimeter is sealed.

The cooling platform 100 is adapted to provide cooling to a wide variety of objects. As used herein, the term "object" can mean a variety of things including but not limited to domestic animals, such as cats and dogs. The use of the cooling platform 100 can extend to human use in vehicles or similar circumstances calling for such regulation. Generally, the cooling platform 100 can be used for anything that needs or requires either heat, cool or temperature regulation.

FIG. 3 and FIG. 4 illustrate a cross-section of the cooling platform 100, which includes the support layer 140. The support layer 140 is substantially bonded to the

bottom side of the temperature regulation layer 110. The support layer 140 comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object.

In an embodiment, the support layer 140 can be made from polyurethane foam, elastomer foam, memory foam, or other suitable material. In another embodiment, the support layer 140 is made of an orthopedic foam, of a consistency designed to protect joints and provide appropriate support to the skeletal system.

In an embodiment, the support layer 140 can include soft, pliable, and removable stuffing material to provide cushioning, allowing a user to establish the firmness or softness desired. Such material can include synthetic pillow stuffing such as polyester filling, or can include feathers such as goose or duck down. As a further embodiment, the support layer 140 can include a combination of dense foam and softer pillow stuffing. It is contemplated that different types of cushioning can be utilized for different types, sizes, and weight of objects.

FIG. 3 and FIG. 4 further illustrate the composition 110A within the temperature regulation layer 110. The composition 110A serves to control the temperature of the cooling platform 100. The cooling platform 100 can handle a range of different temperatures depending on the object in use. This can mean that the composition 110A can encompass a variety of cooling and heating compounds.

In an embodiment, the composition 110A can be activated by a wide variety of means, e.g. the addition of water. In this embodiment, the composition 110A can include ammonium nitrate and distilled water.

In another embodiment, the composition 110A can be activated by pressure, wherein the pressure of a object sitting on the cooling platform 100 activates the composition 110A, triggering an endothermic process and subsequent cooling. Upon the release of that pressure, the composition 110A undergoes a subsequent recharge, essentially the reverse of the initial reaction. The above is consistent with Le Chatelier's principle, in that, the reaction reverses upon the application or absence of pressure. In this embodiment, the composition 110A is comprised of: thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and at least fifteen percent alginic acid. The aforementioned composition 110A also provides a cooling effect for an increased duration over other known compositions.

FIG. 5 illustrates a cross-section of the channeled covering layer 150. The channeled covering layer 150 can encompass both the support 140 and temperature regulation layers 110. The channeled covering layer 150 can comprise a piece of fabric or netting, which can include, but is not limited to, plastic, nylon or cloth netting, or a micro-fiber material with a waterproof layer.

The fabric or netting can allow circulated air to penetrate and escape to the surface, effectuating the cooling process. The fabric or netting can be air tight or resistant to air penetration, to provide indirect cooling. In another embodiment, the channeled covering layer 150 can be made of a firm material, such as plastic, which retains its shape when sat upon by an object. Additionally, the channeled covering layer 150 can include padding to provide a comfortable seating surface.

In an embodiment, the channeled covering layer 150 can be easily removed via a bottom and/or zipper or any other similar means attached thereto. The channeled covering layer 150 can be made of material such that it can be easily replaced with a different top portion made of another material (and/or having different thickness) as desired. Further, in an embodiment, the channeled covering layer 150 can contain antibacterial, stain resistant, chew resistant, and/or anti flea materials.

FIG. 6 and FIG. 7 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 includes a pressure portion 110B. The pressure portion 110B allows for the ability to increase or decrease the firmness of the temperature regulation layer 110 and thus the cooling platform 100 by the addition of gases such as oxygen. This feature can be predetermined or varied as set forth below.

In an embodiment, the pressure portion 110B can include a means for inflating or deflating 115 the pressure portion 110B and the temperature regulation layer 110. The means for inflating and deflating 115 can include a variety of structures designed for air intake and out take. Often, the structures involved in such means include a protruding valve stem and a cap. The valve stem can be connected or coupled with a threaded portion for attachment to a mechanical or electrical pump, or can be comprised of a plastic valve allowing for human pressure inflation.

In an embodiment, the means for inflating or deflating can interconnect the pressure portions 110B held within the plurality of angled segments 120. In another embodiment, each pressure portion 110B can be provided for individually within each

angled segment 120 at either a fixed pressure or established using the above mentioned interconnected means.

FIG. 8 and FIG. 9 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 is adapted to hold a composition 110A in a single angled segment 120. Therefore, the temperature regulation layer 110 becomes the single angled segment 120. The perimeter of the angled segment 120, which includes a top side and a bottom side, is sealed preventing the composition 110A from leaking.

FIG. 10 and 11 illustrate another alternative embodiment of the invention. In this particular embodiment, the temperature regulation layer 110/120 is adapted to hold the composition 110A. In this embodiment, the temperature regulation layer 110/120 has an angled segment 120 formed as described herein. However, this embodiment does not include the channeled covering layer 150 as well as support layer 140.

FIG. 12 and 13 illustrate another embodiment of the invention. In this embodiment, the temperature regulation layer 110 adapted to hold the composition 110A, has a plurality of angled segments 120. And as already described herein, the angled segments 120 are formed by a top side and a bottom side at a predefined distance, and by channels 130. In an embodiment, the channels 130 may completely segment the plurality of angled segments 120.

As mentioned in conjunction with the channeled covering layer 150, the temperature regulation layer 110 may be comprised of similar materials making up the channeled covering layer 150. The temperature regulation layer 110, in an embodiment, may also be plastic or of similar material, and in another embodiment be such that the composition 110A is viewable through clear material.

In use, the cooling platform 100 is able to regulate the temperate of an object. The object contacts the channeled covering layer 150 exerting pressure over the cooling platform 100. The support layer 140 is designed to be sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. As stated herein, the support layer 140 can be comprised of a wide variety of components.

Depending on the composition 110A used, the temperature regulation layer 110 transfers heat from the object. In further effectuating heat transfer, the channels 130 have at least two advantages. First, the channels 130 are designed to mix air with the cooling process between the object and the channeled covering layer 150. Second, the channels 130 substantially prevent or minimize the composition 110A from being pushed out of the angled segment 120. Obviously, in other embodiments presented herein, the angled segments 120 can be completely segmented, fully preventing such an issue. The channeled covering layer 150 also aids in effectuating heat transfer from the object by its composition of channels. Of course, the degree of such aid depends in large part on the type of material used with the cooling platform 100.

In adjusting to accommodate the object, the pressure portions 110B are used. As stated above, the pressure portions 110B can be individual and predetermined or variable and interconnected. Thus, the interconnected pressure portions 110B can be varied through the means for inflating and deflating 115. Also, as stated herein, the channeled covering layer 150 can provide a degree of comfort and firmness depending on the material used, lending to the overall versatility of the cooling platform 100.

The invention contains a large amount of advantages. An advantage of the invention is the composition 110A. The composition 110A is able to be re-used without the need for electricity, refrigeration, additional treatments, or extraneous equipment. The advantage stems from the components within the composition 110A, which effectively keep a temperature of 3-4 degrees Fahrenheit lower than body temperature. This particular composition 110A is able to recharge after the alleviation of pressure (after the object moves). This particular advantage further allows for low-cost and eco-friendly solutions to temperature regulating and aids in the "mobility" aspect of the invention by not requiring input from other sources and by virtue of being a non-toxic substance.

Another advantage of the invention is the unique design. The design enhances and optimizes the cooling performance. The channels 130 allow for a mixture of air flow between the object and the cooling platform 100, effectively cooling the object at a quicker rate. Furthermore, the presence of the predefined distance from the top and bottom of the angled segment 120, essentially prevents the dispersion of the composition 110A from the pressure the object exerts on the cooling platform 100. The overall effect increases the rate of cooling on the targeted object.

Another advantage of the invention is the interconnected pressure portions 110B. The pressure portions 110B provide the ability to increase or decrease the overall pressure of the cooling platform 100. This feature is particularly advantageous given the large variation in object weight.

While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative and not restrictive of the current invention, and that this invention is not restricted to the specific constructions and arrangements shown and described since modification can occur to those ordinarily skilled in the art.

ABSTRACT

A cooling platform for cooling an object is provided. The cooling platform comprises a temperature regulation, a support layer, and a channeled covering layer. The temperature regulation layer is adapted to hold a composition. The temperature regulation layer has a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance. The support layer is substantially bonded to the bottom side of the temperature regulation layer and is comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. The channeled covering layer encompasses the support and temperature regulation layers.

Interview Summary

Applicant Larry Wright and counsel Reid Dammann attended an Examiner Interview (“Interview”) with Examiner Zec (“Examiner”) on September 5, 2013 at 10:30 PST to discuss the issues discussed related to the rejections under 35 U.S.C. § 112 and 35 U.S.C. § 103. No agreements on claims were made during the Interview.

During the Interview, Applicant and Examiner discussed a suggested amendment to the title of the invention to include “pressure activated recharging composition.” The Examiner agreed that the suggested amendment described the invention more clearly.

Applicant and Examiner further discussed the 35 U.S.C. § 112 rejections. To this end, Applicant and Examiner agreed that if Applicant amended the respective claims to include the definitions provided by the Examiner, such amendment would overcome the rejection. Further, Applicant and Examiner discussed the Examiner’s antecedent issue with respect to the limitation “a composition” in claims 17 and 19. Applicant and Examiner agreed that it would resolve the rejection if Applicant deleted the sentence “adapted to hold a composition.”

Applicant further discussed amending Claims 1 and 11 to include the limitation “pressure activated recharging composition” to more accurately describe the composition. Along these lines, 35 U.S.C. § 103 was discussed, specifically, the disclosure of Elastic, Superporous Hydrogel Hyprides of Polyacrylamide and Sodium Alginate, Hossein Omidian, Jose G. rocca, and Kinam Park reference (“Omidian”).

Applicant’s position was explicitly stated during the interview. Applicant stated that Omidian simply does not discuss a cooling property. More specifically, Omidian does not disclose a composition that decreases in temperature when pressure is applied

and recharges when pressure is released; and as discussed with the Examiner, Applicant's suggested amendment, "a pressure activated recharging composition," would not be disclosed as well.

Secondly, Applicant took issue with the motivation provided by the Examiner. The motivation cited in the Office Action was provided from the Omidian reference, namely, that those skilled in the art would be motivated to "use it as a flexible storage for cold energy in an industrial application." *See* Office Action; Pg. 11¶3 (page 710 of Omidian).

Applicant suggested that the term "cold" or "cold energy" or "storage for cold energy" is not found in Omidian, and that the Examiner is using hindsight reconstruction. More specifically, the motivation provided by the Examiner lacks the articulated reasoning with some rational underpinning required by *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) because the prior art does not suggest the limitation of a pressure activated recharging composition.

The Examiner responded that the motivation provided was proper and that the motivation would even be stronger if the words "storage for cold energy" were taken out. Applicant respectfully submitted that without "storage for cold energy" in the motivation the articulated reasoning with some rationale underpinning becomes further attenuated because a limitation in an embodiment of Applicant's invention provides cold energy.

The remainder of the discussion centered on the Examiner finding motivation in Omidian for the limitation "pressure activated recharging composition." The Examiner cited below, the support:

The cycle of stretching/unloading of the swollen elastic hydrogel hybrid can be repeated numerous times. This unique property can potentially be

explained in the development of fast and high-swelling elastic hydrogels for a variety of pharmaceutical, biomedical and industrial applications. Omdian; Pg. 710.

The Examiner equated “stretching/unloading” of the swollen elastic hydrogel with Applicant’s application and release of pressure to activate and recharge the composition, resulting in a cooling and recharging of its claimed composition. Further, the Examiner stated that because the term “biomedical” was used, it covered the use of Applicant’s invention. Applicant disagreed with the Examiner’s assessment of Omidian in its entirety.

Remarks

Reconsideration of the present Application is respectfully requested. In this response, Claims 1 - 20 are pending and stand rejected. Applicant has amended Claims 1, 7, 11, 14, 17, 19, cancelled Claims 5, 6, 12, 13, 18, and 20, and added claims 21 – 26. Therefore, Claims 1 – 4, 7 – 11, 14 – 17, 19, and 21 – 26 are pending. No new matter has been added by this amendment. Applicant traverses the rejections and respectfully requests reconsideration and withdrawal.

Specification

Applicant has amended the title similar to the Examiner’s suggestion. Further, Applicant has also included page numbers and provided a substitute specification including the same.

Claim Rejection Under 35 U.S.C. § 112

The Examiner has rejected Claims 1-20 under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre AIA), second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention. Specifically:

The term "material sufficiently pliable to deform and sufficiently rigid to withstand collapse" in claims 1 and 11, lines 9 and 7, respectively is a relative term which renders the claim indefinite. The term " material sufficiently pliable to deform and sufficiently rigid to withstand collapse " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Said limitation has been interpreted as - - an elastic material capable of deforming and withstanding collapse.

See Non-Final Office Action ("Office Action"); Pg. 3¶1.

Applicant agrees with the Examiner's interpretation given that the specification details an embodiment, that the support layer 140 can be made from polyurethane foam, elastomer foam, memory foam, or other suitable material. In another embodiment, the support layer 140 is made of orthopedic foam, of a consistency designed to protect joints and provide appropriate support to the skeletal system. Said claims have been amended. Therefore, because Claims 3-10 and 12-16 depend from claims 1 and 11, they satisfy the requirements of 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre AIA).

The Examiner has further stated that:

Claims 17 and 19 recite the limitation "a composition" in lines 6 and 8, respectively. It is unclear whether said limitation differs from the limitation "a composition" from line 2 in said claim and the limitation should read - - the composition - - .

See Office Action; Pg. 3¶4.

Applicant respectfully disagrees with the Examiner's statement. The limitation "a temperature regulation layer" is a positively recited limitation whereas "adapted to hold a composition" speaks to an inferential limitation related to the structure of the temperature regulation layer. Thus, that is the reasoning behind using "a" in the positively recited

limitation “a composition, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.” That is, the composition is a positively cited limitation. Thus, Claims 18 and 20 should be rendered definite. That said, Applicant has amended said claims and taken out the language rendering the rejection moot.

The Examiner has further indicated that:

Claims 5 and 12 are rejected under 35 U.S.C. 112, 4th paragraph, as being of improper dependent form for failing to further limit the subject matter of the claim upon which it depends, or for failing to include all the limitations of the claim upon which it depends. They both recite the limitation "the temperature regulation layer includes a composition", which is already claimed in independent claim 1 and 11, respectively. Applicant may cancel the claim(s), amend the claim(s) to place the claim(s) in proper dependent form, rewrite the claim(s) in independent form, or present a sufficient showing that the dependent claim(s) complies with the statutory requirements.

See Office Action; Pg. 4¶1.

Given the above amendments with respect to Claims 1 and 11, Claims 5 and 12, depending from Claims 1 and 11, respectfully, satisfy 35 U.S.C. 112, 4th paragraph.

Claim Rejection Under 35 U.S.C. § 103

The Examiner has further rejected Claims 1-3, 5, 6, 9-13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 4,064 ,835 to Rabenbauer (“Rabenbauer”) in view of U.S. Patent 7,036,162 to Gatten (“Gatten”).

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant.” *In re Rijckaert*, 9

F.3d 1531, 1532 (Fed. Cir. 1993) (citations omitted). In order to determine whether a prima facie case of obviousness has been established, we consider the factors set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966): (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the relevant art; and (4) objective evidence of nonobviousness, if present.

Moreover, “obviousness requires a suggestion of all limitations in a claim.” *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (CCPA 1974)((obviousness requires a suggestion of all limitations in a claim).¹ When determining whether a claim is obvious, an Examiner must make “a searching comparison of the claimed invention – including all its limitations –with the teachings of the prior art.” *In re Ochiai*, 71 F.3d 1565, 1 572 (Fed. Cir. 1995).

The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn* stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

While the analysis under 35 U.S.C. §103 allows flexibility in determining whether a claimed invention would have been obvious, *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007), it still requires showing that “there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* An invention “composed of several elements is not proved obvious merely by demonstrating that each

¹ *In re Royka*, was not overruled in *KSR Int'l Co*, and the court indicated that all the claim limitations must be taught or suggested by the prior art. MPEP §2142. *KSR v. Teleflex*, 550 U.S. 398 (2007).

of its elements was, independently, known in the prior art.” *Id.* The obviousness analysis “should be made explicit,” and it “can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l Co.* at 418.

“We must still be careful not to allow hindsight reconstruction of references to reach the claimed invention without any explanation as to how or why the references would be combined to produce the claimed invention.” *Innogenetics, N.V. v. Abbott Labs.*, 512 F.3d 1363, 1374 n.3 (Fed. Cir. 2008). If [a reference] is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it.” *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992).

The prior art disclosure may be express, implicit, or inherent. Regardless of the type of disclosure, the prior art must provide some motivation to one of ordinary skill in the art to make the claimed invention in order to support a conclusion of obviousness. See *In re Vaeck*, 947 F. 2d 488, 493 20 USPQ2d 1438 (Fed. Cir. 1991)(“in order to find such motivation or suggestion there should be a reasonable likelihood that the claimed invention would have the properties disclosed by the prior art”).

Further, “the analogous-art test requires that the Board show that the reference is either in the field of the applicant’s endeavor or is reasonably pertinent to the problem with which the inventor was concerned in order to rely on that reference as a basis for rejection.” *In re Kahn*, 441 F.3d at 986-87 (citing *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992)).

The Examiner cites the reference Elastic, Superporous Hydrogel Hyprides of Polyacrylamide and Sodium Alginate, Hossein Omidian, Jose G. rocca, and Kinam Park

(“Omidian”) for the purpose of disclosing Applicant’s “composition” and for providing the motivation to combine to a person skilled in the art.

Omidian is directed to superporous hydrogel² hybrids. The purpose behind the research in Omidian was to increase the mechanical strength by adding crosslinked hydrophilic polymers into the formulation. Basically, the development of a superporous hydrogel with superior mechanical and elastic properties. *See* Omidian; Pg. 703 and Summary. The modification increases the crossline density of the hydrogel without making the superporous hydrogels brittle. *See* Omidian; Pg. 703 ¶2.

At the outset, Applicant respectfully submits that Omidian does not expressly, implicitly, or inherently disclose the property of cooling and recharging or a composition that decreases in temperature upon pressure activation; and recharges on the release of that pressure – as claimed in Applicant’s invention. As stated above, obviousness requires a suggestion of all limitations in a claim. *CFMT, Inc. v. Yieldup Intern. Corp.* Therefore, because the pressure activated recharging cooling composition is not disclosed, the rejection is rendered moot.

Secondly, the reasoning supplied by the Examiner lacks the necessary articulated structure with some rationale underpinning required by *KSR v. Teleflex*. The Examiner stated in the Office Action that those skilled in the art would be motivated to “use it as a flexible storage for cold energy in an industrial application.” *See* Office Action; Pg. 11¶3 (page 710 of Omidian).

Preliminarily, the terms “storage for cold energy” or “cold energy” or even “cold” are not found in Omidian. As stated above, Omidian is directed at strengthening

² Hydrogels are polymers that absorb a considerable amount of water in a very short period of time. *See* Omidian; Introduction; Pg. 703.

superporous hydrogels. Further, as amended, Omidian does not disclose any terms identical or relating to the application and release of pressure to drive a chemical reaction to decrease and increase in temperature.

During the Interview, the Examiner stated that the motivation to combine, found in Omidian, that is directed to “a pressure activated recharging composition” (as amended in the current response), is the following:

The cycle of stretching/unloading of the swollen elastic hydrogel hybrid can be repeated numerous times. This unique property can potentially be explained in the development of fast and high-swelling elastic hydrogels for a variety of pharmaceutical, biomedical and industrial applications. Omdian; Pg. 710.

During the Interview (as stated herein), the Examiner equated “stretching/unloading” of the swollen elastic hydrogel with Applicant’s application and release of pressure to activate and recharge the composition, resulting in a cooling and recharging of its claimed composition. Applicant respectfully disagrees that stretching and unloading discloses the application and release of pressure to drive a reversible chemical reaction.

In context, stretching and unloading in Omidian refers to the elasticity and resiliency of the hydrogel hybrid. *See* Omidian; Pg. 710. Here, the Examiner simply ignores the use of the term “cycle” and the distinction between “pressure” and “tension.” The “stretching” refers to the elastic property of the superporous hydrogel, and the “unloading” is simply the superporous hyrogel reverting back to its natural state after being stretched. This is not the same as the application and release of “pressure,” further, the application and release of pressure to drive a chemical reaction.

Here, Applicant respectfully submits that the reason to combine provided by the Examiner would not prompt a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does *KSR Int'l Co.* at 418. Further, it should be noted that the purpose of Omidian was directed to a research product entirely different and unrelated to that of Applicant's invention a person ordinarily skilled in the art would accordingly have had less motivation or occasion to consider it." *In re Clay*.

Furthermore, in order to find such motivation or suggestion there should be a reasonable likelihood that the claimed invention would have the properties disclosed by the prior art. See *In re Vaeck*, 947 F. 2d 488, 493 20 USPQ2d 1438 (Fed. Cir. 1991). Here, at least Applicant's "pressure" and "cooling" properties of the chemical composition are not realized by the prior art; that is, Omidian does not recognize or disclose that pressure can be applied to a composition, changing the temperature of the same. Therefore, if the property is not realized, it cannot be prior art.

Because Claims 2 – 4 and 10 depend from Claim 1, such claims are allowable. Claims 11, 21 - 26 are allowable because they include the same limitation as Claim 1, and because Claims 15 - 16 depend from 11, it is allowable the same. Lastly, Claims 7, 14, 17, 19 include the same limitation, albeit with specific percentages, these claims are allowable just the same.

Conclusion

In view of the above provided remarks, it is respectfully submitted in this Application that Claims 1 – 4, 7 – 11, 14 – 17, 19, and 21 – 26 are in condition for allowance. If the Examiner has any further point of objection or the Examiner believes a telephone conference would expedite or assist in the allowance of the present Application, the Examiner is invited to contact Applicant's undersigned representative at 213.627.7611.

Respectfully submitted,

MUSICK PEELER LLP

/Reid Dammann/

09/09/2013

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United States Patent and Trademark Office Reg. No. 57,227

Electronic Acknowledgement Receipt

EFS ID:	16803121
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	COOLING PLATFORM
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	33378.001
Receipt Date:	09-SEP-2013
Filing Date:	14-APR-2010
Time Stamp:	17:54:34
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	NFRTheGreenPetShop.pdf	357565 9a9d6f3db4785c0137491471affa7fa2d15e a47d	no	49

Warnings:**Information:**

JA0105

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT APPLICATION FEE DETERMINATION RECORD
Substitute for Form PTO-875

Application or Docket Number

12/760,045

Filing Date

04/14/2010

 To be MailedENTITY: LARGE SMALL MICRO**APPLICATION AS FILED – PART I**

(Column 1)

(Column 2)

FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)
<input checked="" type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	165
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =	
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	165

APPLICATION AS AMENDED – PART II

(Column 1)

(Column 2)

(Column 3)

AMENDMENT	09/09/2013	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	
		Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$40 =	0
		Independent (37 CFR 1.16(h))	* 10	Minus	***4	= 6	x \$210 =	1260
		<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
		<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	1260	

(Column 1)

(Column 2)

(Column 3)

AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	
		Total (37 CFR 1.16(i))	*	Minus	**	=	x \$ =	
		Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$ =	
		<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))						
		<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE		

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

TOTAL ADD'L FEE

LIE
/GWENDOLYN MYERS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/760,045	04/14/2010	GERARD E. PRENDERGAST	33378.001	8273
75398	7590	07/31/2013	EXAMINER	
Musick Peeler & Garrett, LLP			ZEC, FILIP	
One Wilshire Boulevard				
Suite 2000			ART UNIT	PAPER NUMBER
Los Angeles, CA 90017			3744	
			MAIL DATE	DELIVERY MODE
			07/31/2013	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 12/760,045	Applicant(s) PRENDERGAST, GERARD E.	
	Examiner FILIP ZEC	Art Unit 3744	AIA (First Inventor to File) Status No
<i>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</i>			
Period for Reply			
<p>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.</p> <ul style="list-style-type: none"> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). 			
Status			
<p>1) <input checked="" type="checkbox"/> Responsive to communication(s) filed on <u>6/16/2010</u>. <input type="checkbox"/> A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____. 2a) <input type="checkbox"/> This action is FINAL. 2b) <input checked="" type="checkbox"/> This action is non-final. 3) <input type="checkbox"/> An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action. 4) <input type="checkbox"/> Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i>, 1935 C.D. 11, 453 O.G. 213.</p>			
Disposition of Claims			
<p>5) <input checked="" type="checkbox"/> Claim(s) <u>1-20</u> is/are pending in the application. 5a) Of the above claim(s) _____ is/are withdrawn from consideration. 6) <input type="checkbox"/> Claim(s) _____ is/are allowed. 7) <input checked="" type="checkbox"/> Claim(s) <u>1-20</u> is/are rejected. 8) <input type="checkbox"/> Claim(s) _____ is/are objected to. 9) <input type="checkbox"/> Claim(s) _____ are subject to restriction and/or election requirement.</p>			
<p>* If any claims have been determined <u>allowable</u>, you may be eligible to benefit from the Patent Prosecution Highway program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.</p>			
Application Papers			
<p>10) <input checked="" type="checkbox"/> The specification is objected to by the Examiner. 11) <input checked="" type="checkbox"/> The drawing(s) filed on <u>14 April 2010 and 16 June 2010</u> is/are: a) <input checked="" type="checkbox"/> accepted or b) <input type="checkbox"/> objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).</p>			
Priority under 35 U.S.C. § 119			
<p>12) <input type="checkbox"/> Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</p>			
Certified copies:			
<p>a) <input type="checkbox"/> All b) <input type="checkbox"/> Some * c) <input type="checkbox"/> None of the: 1. <input type="checkbox"/> Certified copies of the priority documents have been received. 2. <input type="checkbox"/> Certified copies of the priority documents have been received in Application No. _____. 3. <input type="checkbox"/> Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</p>			
<p>* See the attached detailed Office action for a list of the certified copies not received.</p>			
Attachment(s)			
<p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 3) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date _____. 2) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____. 4) <input type="checkbox"/> Other: _____</p>			

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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A Cooling Pet Bed utilizing a Pressure Activated Coolant.

The disclosure is objected to because of the following informalities: the specification pages are not numbered.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of 35 U.S.C. 112(b):

(B) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the [fifth paragraph of 35 U.S.C. 112], a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

3. Claims 1-20 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject

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matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

The term "material sufficiently pliable to deform and sufficiently rigid to withstand collapse" in claims 1 and 11, lines 9 and 7, respectively is a relative term which renders the claim indefinite. The term " material sufficiently pliable to deform and sufficiently rigid to withstand collapse " is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Said limitation has been interpreted as - - an elastic material capable of deforming and withstanding collapse - - .

Claim 2 recites the limitation "wherein the plurality of angled segments include a pressure portion". According to the drawings and the specification, each of the plurality of angled segments includes a pressure portion; further dependent claims further limit a plurality of pressure portions, indicating a single pressure portion for each angled segment. Thus, said limitation is interpreted as - - wherein each of the plurality of angled segments includes a pressure portion - - .

Claims 3-10 and 12-16 depend on claims 1 and 11, respectively, and are thus also deemed indefinite by definition.

Claims 17 and 19 recite the limitation "a composition" in lines 6 and 8, respectively. It is unclear whether said limitation differs from the limitation "a composition" from line 2 in said claim and the limitation should read - - the composition - - .

Claims 18 and 20 depend on claims 17 and 19, respectively, and are thus also deemed indefinite by definition.

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4. Claims 5 and 12 are rejected under 35 U.S.C. 112, 4th paragraph, as being of improper dependent form for failing to further limit the subject matter of the claim upon which it depends, or for failing to include all the limitations of the claim upon which it depends. They both recite the limitation “the temperature regulation layer includes a composition”, which is already claimed in independent claim 1 and 11, respectively. Applicant may cancel the claim(s), amend the claim(s) to place the claim(s) in proper dependent form, rewrite the claim(s) in independent form, or present a sufficient showing that the dependent claim(s) complies with the statutory requirements.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3, 5, 6, 9-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,064,835 to Rabenbauer (Rabenbauer) in view of U.S. Patent 7,036,162 to Gatten (Gatten).

In reference to claim 1, Rabenbauer teaches a cooling platform for cooling an object (air conditioned pet bed, FIG. 1-5), the platform comprising a temperature regulation layer (2, FIG. 3) adapted to hold a composition (3, FIG. 3), the temperature regulation layer having a support layer (1, FIG. 3) substantially bonded (interpreted as “joined securely” or “unable to substantially move with respect to”) to the bottom side of the temperature regulation layer (bottom side of 2, FIG. 3), the support layer comprised of an elastic material capable of

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deforming and withstanding collapse in response to the weight of the object (wood or plastic; col 1, lines 30-33); and a channeled covering layer (4, FIG. 3) encompassing the support (1, FIG. 3) and temperature regulation layers (2, FIG. 3), but does not teach a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance. Gatten teaches a cooling mattress for sunbathing (FIG. 8) comprising a plurality of angled segments (318, FIG. 8), wherein angled segments within a sealed perimeter (inherent in the structure to prevent leaks in FIG. 8) of the temperature regulation layer (312, FIG. 8) are formed by a top side (top side of 312, FIG. 8) and a bottom side (bottom side of 312, FIG. 8) at a predefined distance, and channels (spaces formed by angled portions 318, FIG. 3), wherein the channels substantially form sides by contacting the top side (top side of 312, FIG. 8) with the bottom side (bottom side of 312, FIG. 8) at a distance lesser than the predefined distance (smaller than the thickness of the pad 312, FIG. 8) in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration (col 4, lines 33-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer, to include a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance

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lesser than the predefined distance, as taught by Gatten, in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration.

In reference to claim 2, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, but Rabenbauer does not teach that each of the plurality of angled segments include a pressure portion. Gatten teaches a cooling mattress for sunbathing (FIG. 8) comprising a plurality of angled segments (318, FIG. 8), wherein each of the plurality of angled segments (318, FIG. 8) include pressure portions (A1 and A2, FIG. X below, as annotated by the Examiner) in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration (col 4, lines 33-36).

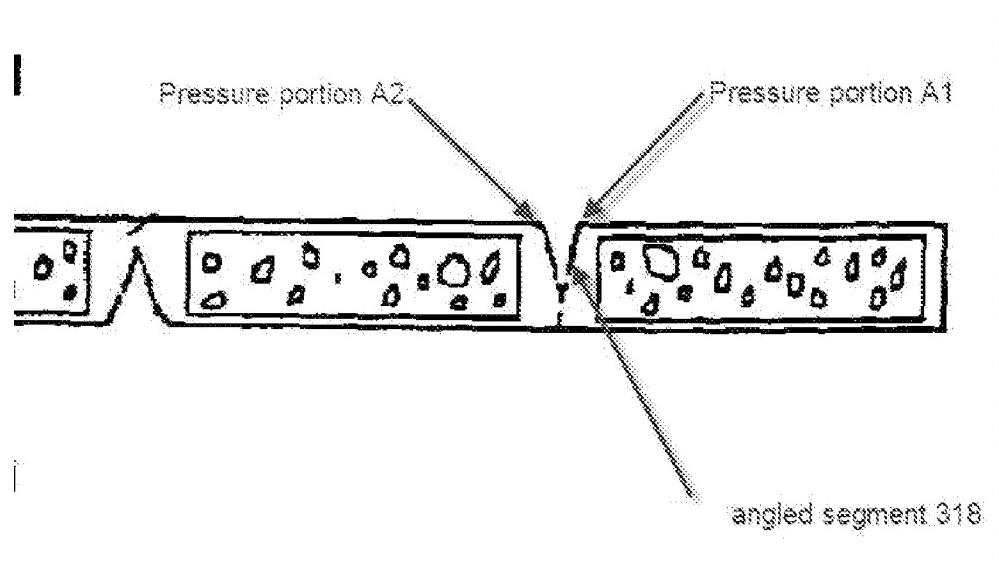


FIG. X, as annotated by the Examiner: Pressure points A1 and A2 of the angled segments 318 Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer, to have the plurality of angled segments include a pressure portion, as taught by Gatten, in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration.

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In reference to claim 3, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, but Rabenbauer does not teach that the pressure portions are interconnected. Gatten teaches a cooling mattress for sunbathing (FIG. 8) comprising a plurality of angled segments (318, FIG. 8), wherein the plurality of angled segments (318, FIG. 8) include pressure portions (A1 and A2, FIG. X below, as annotated by the Examiner), wherein said pressure portions are interconnected (via channels; spaces formed by angled portions 318, FIG. 3) in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration (col 4, lines 33-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer and Gatten, to have the pressure portions interconnected, as taught by Gatten, in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration.

In reference to claim 5, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, and Rabenbauer teaches that the temperature regulation layer includes a composition (artificial ice packs 3, FIG. 3; col 2, lines 2-4).

In reference to claims 6 and 13, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claims 1 and 12, but they do not teach wherein the composition is activated by pressure. However, the Examiner takes the Official Notice of facts not in the record by relying on “common knowledge” of various cooling pads or pouches comprising compositions activated by pressure when squeezed in order to provide a simple and quick low temperature source.

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In reference to claim 9, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, but they do not explicitly teach wherein the channeled covering layer comprises a piece of fabric. Rabenbauer teaches that the support layer (1, FIG. 3) is made of plastic (col 1, lines 30-33). The applicant defines “fabric” in the present specification as something which can include, but is not limited to plastic, nylon or cloth netting (page 7, second paragraph, last sentence).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer and Gatten, to have the channeled covering layer comprise a piece of fabric, as taught by Rabenbauer, in order to provide sufficient support for the pet and reduce the cost of producing the apparatus by utilizing the same material as for the support layer.

In reference to claim 10, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, but they do not explicitly teach wherein the angled segments within the sealed perimeter are sealed. However, the Examiner takes the Official Notice of facts not in the record by relying on “common knowledge” of various cooling pads or pouches comprising cool packs or gel-packs wherein envelopes comprising said cool packs or gel-packs are sealed in order to prevent any leaks and harm the environment.

In reference to claim 11, Rabenbauer teaches a cooling platform for cooling an object (air conditioned pet bed, FIG. 1-5), the platform comprising a temperature regulation layer (2, FIG. 3) adapted to hold a composition (3, FIG. 3), a support layer (1, FIG. 3) substantially bonded (interpreted as “joined securely” or “unable to substantially move with respect to”) to the bottom side of the temperature regulation layer (bottom side of 2, FIG. 3), the support layer comprised

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of an elastic material capable of deforming and withstanding collapse in response to the weight of the object (wood or plastic; col 1, lines 30-33); and a channeled covering layer (4, FIG. 3) encompassing the support (1, FIG. 3) and temperature regulation layers (2, FIG. 3), but does not teach the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side. Gatten teaches a cooling mattress for sunbathing (FIG. 8) comprising a temperature regulation layer (312, FIG. 8) having an angled segment (318, FIG. 8) formed by a top side (top side of 312, FIG. 8) and a bottom side (bottom side of 312, FIG. 8) at a predefined distance, and channels (spaces formed by angled portions 318, FIG. 3), wherein the channels form sides by contacting the top side (top side of 312, FIG. 8) with the bottom side (bottom side of 312, FIG. 8) in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration (col 4, lines 33-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer, to include an angled segment formed by a top side and a bottom side of the temperature regulation layer at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side, as taught by Gatten, in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration.

In reference to claim 12, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 11, and Rabenbauer teaches that the temperature regulation layer includes a composition (artificial ice packs 3, FIG. 3; col 2, lines 2-4).

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In reference to claim 15, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 11, but Rabenbauer does not teach that the temperature regulation layer includes a pressure portion within the angled segment. Gatten teaches a cooling mattress for sunbathing (FIG. 8) comprising an angled segment (318, FIG. 8) which includes a pressure portion (A1 and A2, FIG. X above, as annotated by the Examiner) in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration (col 4, lines 33-36).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer, to have the temperature regulation layer include a pressure portion within the angled segment, as taught by Gatten, in order to enable the portions of the liner carrying the cavities to be folded to place the mattress in a compact configuration.

7. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenbauer in view of Gatten as applied to claims 3 and 15 above, and further in view of U.S. Patent 6,210,427 to Augustine et al. (Augustine).

In reference to claims 4 and 16, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 3 and 15, but they do not teach that the pressure portions include a means for inflating and deflating. Augustine teaches a support apparatus with a plurality of thermal zones providing localized cooling (FIG. 11-13) wherein the pressure portions (slots 117, FIG. 13) include a means for inflating and deflating (air jet slot valve 116, FIG. 13) in order to maintain all air bladders at some predetermined state of inflation or distention in

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response to circulating air, thereby ensuring a uniform support of the body across the surface that supports the body (col 10, lines 15-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer and Gatten, and have the pressure portions include a means for inflating and deflating, as taught by Augustine, in order to maintain all air bladders at some predetermined state of inflation or distention in response to circulating air, thereby ensuring a uniform support of the body across the surface that supports the body.

8. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenbauer in view of Gatten as applied to claims 5 and 12 above, and further in view of Macromolecular Bioscience paper “Elastic, Superporous Hydrogel Hybrids of Polyacrylamide and Sodium Alginate” by Omidian et al. (Omidian).

In reference to claims 7 and 14, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 5 and 12, but they do not teach that the composition is comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid. Omidian teaches elastic, superporous hydrogel hybrids of polyacrylamide and sodium alginate (FIG. 1, page 706 and table 5. PAAm/NaCMC, page 709) comprising carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section) and use it as a flexible storage for cold energy in an industrial application (page 710, first column, first paragraph, last line).

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Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer and Gatten, and use the composition comprising carboxymethyl cellulose; water; polyacrylamide; and alginic acid, as taught by Omidian, in order to prepare a strong and elastic superporous hydrogel in its swollen state and use it as a flexible storage for cold energy in an industrial application.

Omidian fails to explicitly disclose that the composition is comprised of 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide; and 15% alginic acid. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Also, the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382. Since Omidian discloses that the hydrogel comprises carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section); the percentage of each of the constituents is recognized as a result-effective variable, i.e. a variable which achieves a recognized result. In this case, the recognized result is that optimizing said constituents provides swellable material that is mechanically very strong and elastic (results and discussion section, page 705-706). Therefore, since the general conditions of the claim, i.e. that the hydrogel composition comprises carboxymethyl cellulose; water; polyacrylamide; and alginic acid, were disclosed in the prior art by Omidian, it is not inventive to

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discover the optimum workable range by routine experimentation, and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the composition disclosed by Omidian having 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide; and 15% alginic acid in order to prepare a strong and elastic superporous hydrogel in its swollen state.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenbauer in view of Gatten as applied to claims 5 and 12 above, and further in view of U.S. Patent 8,011,194 to Dimmitt (Dimmitt).

In reference to claim 8, Rabenbauer and Gatten teach the cooling platform as explained in the rejection of claim 1, but they do not teach wherein the support layer is comprised of memory foam. Dimmitt teaches collapsible cooler convertible to a stadium seat (FIG. 1-11) wherein the support layer (64, FIG. 11) is comprised of memory foam (col 3, lines 25-27) in order to provide more comfortable seating for the user (col 3, lines 24-25).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Rabenbauer and Gatten, and have the support layer comprised of memory foam, as taught by Augustine, in order to provide more comfortable seating for the user.

10. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gatten in view of Omidian.

In reference to claim 17, Gatten teaches a cooling platform for cooling an object (cooling mattress for sunbathing, FIG. 8), the platform comprising a temperature regulation layer (312, FIG. 8) adapted to hold a composition (316, FIG. 3), the temperature regulation layer (312, FIG.

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8) having an angled segment (318, FIG. 8) formed by a top side (top side of 312, FIG. 8) and a bottom side (bottom side of 312, FIG. 8) at a predefined distance, and channels (spaces formed by angled portions 318, FIG. 3), wherein the channels form sides by contacting the top side (top side of 312, FIG. 8) with the bottom side (bottom side of 312, FIG. 8), but does not teach that the composition is comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid. Omidian teaches elastic, superporous hydrogel hybrids of polyacrylamide and sodium alginate (FIG. 1, page 706 and table 5. PAAm/NaCMC, page 709) comprising carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section) and use it as a flexible storage for cold energy in an industrial application (page 710, first column, first paragraph, last line).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Gatten, and use the composition comprising carboxymethyl cellulose; water; polyacrylamide; and alginic acid, as taught by Omidian, in order to prepare a strong and elastic superporous hydrogel in its swollen state and use it as a flexible storage for cold energy in an industrial application.

Omidian fails to explicitly disclose that the composition is comprised of 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide; and 15% alginic acid. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Also, the normal desire of scientists or artisans to

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improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382. Since Omidian discloses that the hydrogel comprises carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section); the percentage of each of the constituents is recognized as a result-effective variable, i.e. a variable which achieves a recognized result. In this case, the recognized result is that optimizing said constituents provides swellable material that is mechanically very strong and elastic (results and discussion section, page 705-706). Therefore, since the general conditions of the claim, i.e. that the hydrogel composition comprises carboxymethyl cellulose; water; polyacrylamide; and alginic acid, were disclosed in the prior art by Omidian, it is not inventive to discover the optimum workable range by routine experimentation, and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the composition disclosed by Omidian having 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide; and 15% alginic acid in order to prepare a strong and elastic superporous hydrogel in its swollen state.

In reference to claim 18, Gatten and Omidian teach the cooling platform as explained in the rejection of claim 17, but they do not teach wherein the composition is activated by pressure. However, the Examiner takes the Official Notice of facts not in the record by relying on “common knowledge” of various cooling pads or pouches comprising compositions activated by pressure when squeezed in order to provide a simple and quick low temperature source.

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In reference to claim 19, Gatten teaches a cooling platform for cooling an object (cooling mattress for sunbathing, FIG. 8), the platform comprising a temperature regulation layer (312, FIG. 8) adapted to hold a composition (316, FIG. 3), the temperature regulation layer having a plurality of angled segments (318, FIG. 8), wherein angled segments within a sealed perimeter (inherent in the structure to prevent leaks in FIG. 8) of the temperature regulation layer (312, FIG. 8) are formed by a top side (top side of 312, FIG. 8) and a bottom side (bottom side of 312, FIG. 8) at a predefined distance, and channels (spaces formed by angled portions 318, FIG. 3), wherein the channels substantially form sides by contacting the top side (top side of 312, FIG. 8) with the bottom side (bottom side of 312, FIG. 8) at a distance lesser than the predefined distance (smaller than the thickness of the pad 312, FIG. 8), but does not teach that the composition is comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid. Omidian teaches elastic, superporous hydrogel hybrids of polyacrylamide and sodium alginate (FIG. 1, page 706 and table 5. PAAm/NaCMC, page 709) comprising carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section) and use it as a flexible storage for cold energy in an industrial application (page 710, first column, first paragraph, last line).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Gatten, and use the composition comprising carboxymethyl cellulose; water; polyacrylamide; and alginic acid, as taught by Omidian, in order

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to prepare a strong and elastic superporous hydrogel in its swollen state and use it as a flexible storage for cold energy in an industrial application.

Omidian fails to explicitly disclose that the composition is comprised of 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide; and 15% alginic acid. However, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Also, the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages *Peterson*, 315 F.3d at 1330, 65 USPQ2d at 1382. Since Omidian discloses that the hydrogel comprises carboxymethyl cellulose (page 709, last line); water (table 5, page 709); polyacrylamide (page 709, last line); and alginic acid (page 704, first column, fourth paragraph, first line) in order to prepare a strong and elastic superporous hydrogel in its swollen state (page 709, Conclusion section); the percentage of each of the constituents is recognized as a result-effective variable, i.e. a variable which achieves a recognized result. In this case, the recognized result is that optimizing said constituents provides swellable material that is mechanically very strong and elastic (results and discussion section, page 705-706). Therefore, since the general conditions of the claim, i.e. that the hydrogel composition comprises carboxymethyl cellulose; water; polyacrylamide; and alginic acid, were disclosed in the prior art by Omidian, it is not inventive to discover the optimum workable range by routine experimentation, and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the composition disclosed by Omidian having 30% carboxymethyl cellulose; 20% water; 35% polyacrylamide;

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and 15% alginic acid in order to prepare a strong and elastic superporous hydrogel in its swollen state.

In reference to claim 20, Gatten and Omidian teach the cooling platform as explained in the rejection of claim 19, but they do not teach wherein the composition is activated by pressure. However, the Examiner takes the Official Notice of facts not in the record by relying on “common knowledge” of various cooling pads or pouches comprising compositions activated by pressure when squeezed in order to provide a simple and quick low temperature source.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,132,455 to Shang teaches a cooling comfort seat cushion.

U.S. Patent Des. 379,730 to Dickman teaches combination towel and article carrier.

U.S. Patent 4,821,354 to Little teaches a portable cooling pool, beach or car seat mat.

U.S. Patent 4,311,022 to Hall teaches foldable ice pack.

U.S. Patent Application Publication 2009/0084320 to Reusche et al. teaches a pet bed cooling system and method.

U.S. Patent 5,991,948 to Stanley et al. teaches a fluid saturated foam container.

U.S. Patent 6,708,646 to Wang teaches a cooling pad for pets.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FILIP ZEC whose telephone number is (571)270-5846. The examiner can normally be reached on Monday-Friday, from 8:30 AM - 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JJ Swan can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Filip Zec/
Examiner, Art Unit 3744

7/24/13

/Frantz F. Jules/
Supervisory Patent Examiner, Art Unit 3744

JA0127

Notice of References Cited		Application/Control No.	Applicant(s)/Patent Under Reexamination	
		12/760,045	PRENDERGAST, GERARD E.	
Examiner		Art Unit		Page 1 of 1
FILIP ZEC		3744		

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-4,064,835 A	12-1977	Rabenbauer, Ludwig	119/28.5
*	B	US-4,311,022 A	01-1982	Hall, John M.	62/457.2
*	C	US-4,821,354 A	04-1989	Little, Donald E.	5/422
*	D	US-D379,730 S	06-1997	Dickman, Deanna M.	D6/608
*	E	US-5,991,948 A	11-1999	Stanley et al.	5/709
*	F	US-6,132,455 A	10-2000	Shang, Li-Jun	607/108
*	G	US-6,210,427 B1	04-2001	Augustine et al.	607/96
*	H	US-6,708,646 B1	03-2004	Wang, Chiao-Ming	119/28.5
*	I	US-7,036,162 B1	05-2006	Gatten, Kenneth W.	5/421
*	J	US-2009/0084320 A1	04-2009	Reusche et al.	119/28.5
*	K	US-8,011,194 B2	09-2011	Dimmitt, James C.	62/115
L	US-				
M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Omidian et al., September 15 th , 2006, Macromolecular Bioscience, vol 6, issue 9, 703-710.
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i>		Application/Control No.	Applicant(s)/Patent Under Reexamination
		12760045	PRENDERGAST, GERARD E.
		Examiner	Art Unit
		FILIP ZEC	3744

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

Claims renumbered in the same order as presented by applicant CPA T.D. R.1.47

CLAIM		DATE									
Final	Original	07/24/2013									
	1	✓									
	2	✓									
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	19	✓									
	20	✓									

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	500	62/259.3.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/07/19 13:58
S3	64	("20050271857" "3997927" "5129391" "6189149" "4204543" "4821354" "5692238" "3967668" "D445223" "4979375" "7036162" "4886063" "5146625" "D379730" "20020043218" "6678896" "6132455" "6602592" "5005374" "6698210" "5787505" "7056335" "20040210287" "4049408" "4765338" "5843145").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/07/19 14:03
S4	24	("3284819" "3555581" "4459714" "4533050" "4788730" "4824411" "4908887" "5066001" "5086529" "5101823" "5388295" "5632051" "5800480" "5837002" "5991948" "6033432" "6128795" "6132455" "6210427").PN. OR ("7036162").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/07/19 14:04
S5	0	12/504598	US-PGPUB; USPAT; USOCR	OR	OFF	2013/07/19 17:31
S6	478	62/529.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/07/19 17:35
S7	589	62/457.2.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/07/19 17:37
S8	2	"7423243".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/07/19 17:43
S9	4	"3889684".pn.	US-PGPUB; USPAT; USOCR;	OR	OFF	2013/07/19 17:45

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			FPRS; EPO; JPO; DERWENT; IBM TDB			
S10	2	"122333291"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/19 17:46
S11	22	("20020056418" "20050076855" "20050284416" "20070077845" "20070099533" "20070277321" "3787908" "3889684" "4060276" "4064835" "4118946" "4301560" "5320164" "5592691" "5755275" "5991948" "6088856" "6189487" "6375674" "6647924" "7423243" "7614362").PN. OR ("8302562").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/07/19 17:47
S12	18	("2661718" "2959938").PN. OR ("4064835").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/07/21 13:15
S13	1	carboxymethyl near cellulose same water same polyacrylamide same alginic near acid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:25
S14	5	carboxymethyl near cellulose and water and polyacrylamide and alginic near acid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:25
S15	453	carboxymethyl near cellulose same water same polyacrylamide same alginic near acid	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:31
S16	0	S15 and "62".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:33
S17	12	S15 and "252".clas.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:34
S18	306	S15 and cool\$3	US-PGPUB; USPAT; USOCR;	OR	OFF	2013/07/21 13:36

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			FPRS; EPO; JPO; DERWENT; IBM TDB			
S19	232	S18 and pressur\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:36
S20	60	S15 and cool\$3 same pressur\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:37
S21	0	S15 and cool\$3 same pressur\$4 same gel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 13:41
S22	18	carboxymethyl near cellulose same water same polyacrylamide same alginic near acid and (refrigerant or refrigerat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/21 14:01
S23	11	"62".clas. and memory adj foam	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/23 11:11
S24	2	12/586558	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM TDB	OR	OFF	2013/07/23 11:43

EAST Search History (Interference)

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7/24/2013 11:55:43 AM**C:\Users\fzec\Documents\EAST\Workspaces\12760045.wsp****JA0132**



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BIB DATA SHEET

CONFIRMATION NO. 8273

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
12/760,045	04/14/2010	062	3744	33378.001

APPLICANTS

GERARD E. PRENDERGAST, Chicago, IL;

**** CONTINUING DATA *********** FOREIGN APPLICATIONS *********** IF REQUIRED, FOREIGN FILING LICENSE GRANTED *** SMALL ENTITY ****

04/26/2010

Foreign Priority claimed	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	<input type="checkbox"/> Yes <input type="checkbox"/> No		IL	5	16	2

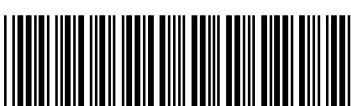
ADDRESS

Musick Peeler & Garrett, LLP
 One Wilshire Boulevard
 Suite 2000
 Los Angeles, CA 90017
 UNITED STATES

TITLE

COOLING PLATFORM

FILING FEE RECEIVED 572	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees
		<input type="checkbox"/> 1.16 Fees (Filing)
		<input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
		<input type="checkbox"/> 1.18 Fees (Issue)
		<input type="checkbox"/> Other _____
		<input type="checkbox"/> Credit

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	12760045	PRENDERGAST, GERARD E.
	Examiner	Art Unit
	FILIP ZEC	3744

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
62	259.3, 457.2, 529	7/22/2013	FZ

SEARCH NOTES		
Search Notes	Date	Examiner
See EAST search history notes	7/24/2013	FZ

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
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12/760,045	04/14/2010	GERARD E. PRENDERGAST	20341-0001
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CONFIRMATION NO. 8273

PUBLICATION NOTICE



OC00000005049066

75398

Musick Peeler & Garrett, LLP
 One Wilshire Boulevard
 Suite 2000
 Los Angeles, CA 90017

Title:COOLING PLATFORM

Publication No.US-2011-0252822-A1

Publication Date:10/20/2011

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

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Electronic Patent Application Fee Transmittal				
Application Number:	12760045			
Filing Date:	14-Apr-2010			
Title of Invention:	COOLING PLATFORM			
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST			
Filer:	Reid Eric Dammann			
Attorney Docket Number:	20341-0001			
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Independent claims in excess of 3	2201	1	110	110
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
JA0136				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
Total in USD (\$)				110

Electronic Acknowledgement Receipt

EFS ID:	7856100
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	COOLING PLATFORM
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	20341-0001
Receipt Date:	21-JUN-2010
Filing Date:	14-APR-2010
Time Stamp:	15:22:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$110
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Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part (Zip)	Pages (if appl.)

1

Fee Worksheet (PTO-875)

fee-info.pdf

29540

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no

2

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

For :COOLING PLATFORM

Application No. :12/760,045

Applicant :Prendergast, Gerard E.

Filed :April 14, 2010

Art Unit :3744

Docket No. :20341-0001

Customer No. :75398

Hon. Commissioner For Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

PRELIMINARY AMENDMENT 37 C.F.R. § 1.115

Dear Sir,

Preliminary to examination, Applicant hereby amends the above-identified patent application, please amend the application as follows:

Amendments to the Specification begin on page 2 of this Preliminary Amendment;

Amendments to the Claims begin on page 4 of this Preliminary Amendment;
Please add new claims 17 – 20

Remarks begin on page 9 of this Preliminary Amendment; and

Conclusion begins on page 10.

Amendments to the Figures are attached hereto

Please amend FIG. 9 to include 140, as set forth in the provided Replacement Sheet and please add FIG. 10, FIG. 11, FIG. 12, and FIG. 13 as provided in the New Sheets;

Amendments of the Specification

Please add paragraphs to the BRIEF DESCRIPTION OF THE DRAWINGS, namely, after "Figure 9 illustrates a cross-sectional perspective of the alternative embodiment of the cooling platform," the following paragraphs:

Figure 10 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 11 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 12 illustrates a cross-sectional perspective of an alternative embodiment of the cooling platform.

Figure 13 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Please add paragraphs to the DETAILED DESCRIPTION OF THE INVENTION, namely, after the paragraph starting with "FIG. 8 and FIG. 9 illustrate an alternative embodiment of the invention,and ending with "which includes a top side and a bottom side, is sealed preventing the composition 110A from leaking," the following paragraphs:

FIG. 10 and 11 illustrate another alternative embodiment of the invention. In this particular embodiment, the temperature regulation layer 110/120 is adapted to hold the composition 110A. In this embodiment, the temperature regulation layer 110/120 has an

angled segment 120 formed as described herein. However, this embodiment does not include the channeled covering layer 150 as well as support layer 140.

FIG. 12 and 13 illustrate another embodiment of the invention. In this embodiment, the temperature regulation layer 110 adapted to hold the composition 110A, has a plurality of angled segments 120. And as already described herein, the angled segments 120 are formed by a top side and a bottom side at a predefined distance, and by channels 130. In an embodiment, the channels 130 may completely segment the plurality of angled segments 120.

As mentioned in conjunction with the channeled covering layer 150, the temperature regulation layer 110 may be comprised of similar materials making up the channeled covering layer 150. The temperature regulation layer 110, in an embodiment, may also be plastic or of similar material, and in another embodiment be such that the composition 110A is viewable through clear material.

Amendments to the Claims

CLAIMS

What is Claimed:

1. (original) A cooling platform for cooling an object, the platform comprising:
 - a temperature regulation layer adapted to hold a composition, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;
 - a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and
 - a channeled covering layer encompassing the support and temperature regulation layers.
2. (original) The cooling platform of claim 1 wherein the plurality of angled segments include a pressure portion
3. (original) The cooling platform of claim 2 wherein the pressure portions are interconnected.

4. (original) The cooling platform of claim 3 wherein the pressure portions include a means for inflating and deflating.

5. (original) The cooling platform of claim 1 wherein the temperature regulation layer includes a composition.

6. (original) The cooling platform of claim 5 wherein the composition is activated by pressure.

7. (original) The cooling platform of claim 5 wherein the composition is comprised of:
thirty percent carboxmethyl cellulose;
twenty percent water;
thirty-five percent polyacrylamide; and
fifteen percent alginic acid.

8. (original) The cooling platform of claim 1 wherein the support layer is comprised of memory foam.

9. (original) The cooling platform of claim 1 wherein the channeled covering layer comprises a piece of fabric or net covering.

10. (original) The cooling platform of claim 1 wherein the angled segments within the sealed perimeter are sealed.

11. (original) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer adapted to hold a composition, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and

a channeled covering layer encompassing the support and temperature regulation layers.

12. (original) The cooling platform of claim 11 wherein the temperature regulation layer includes a composition.

13. (original) The cooling platform of claim 12 wherein the composition is activated by pressure.

14. (original) The cooling platform of claim 12 wherein the composition is comprised of:

thirty percent carboxmethyl cellulose;
twenty percent water;
thirty-five percent polyacrylamide; and
fifteen percent alginic acid.

15. (original) The cooling platform of claim 11 wherein the temperature regulation layer includes a pressure portion within the angled segment.

16. (original) The cooling platform of claim 15 wherein the pressure portion include a means for inflating and deflating.

17. (new) A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer adapted to hold a composition, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side; and

a composition, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

18. (new) The cooling platform of claim 17 wherein the composition is activated by pressure.

19. (new) A cooling platform for cooling an object, the platform comprising:
a temperature regulation layer adapted to hold a composition, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance; and
a composition, wherein the composition is within the temperature regulation layer comprised of thirty percent carboxymethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and fifteen percent alginic acid.

20. (new) The cooling platform of claim 19 wherein the composition is activated by pressure.

Remarks

Applicant has amended to clarify the specification, as well as amend FIG. 9 in a Replacement Sheet to include the reference number 140. Applicant has further added new claims 17 – 20 and FIG. 10, FIG. 11, FIG. 12, and FIG. 13 in New Sheets. Further, no new matter has been entered by this amendment. The amendments herein are intended to clarify subject matter already of record.

Conclusion

Applicant respectfully requests the preliminary amendment be entered and made of record. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to contact Applicant's undersigned representative at 818.705.6800.

Respectfully Submitted,
WASSERMAN, COMDEN & CASSELMAN, L.L.P.

Reid Eric Dammann
United States Patent Attorney
Registration No. 57227

Dated:

Customer No. 75398
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Tarzana, California 91356
P:818.705.6800
F:818.705.8926
rdammann@wcclaw.com

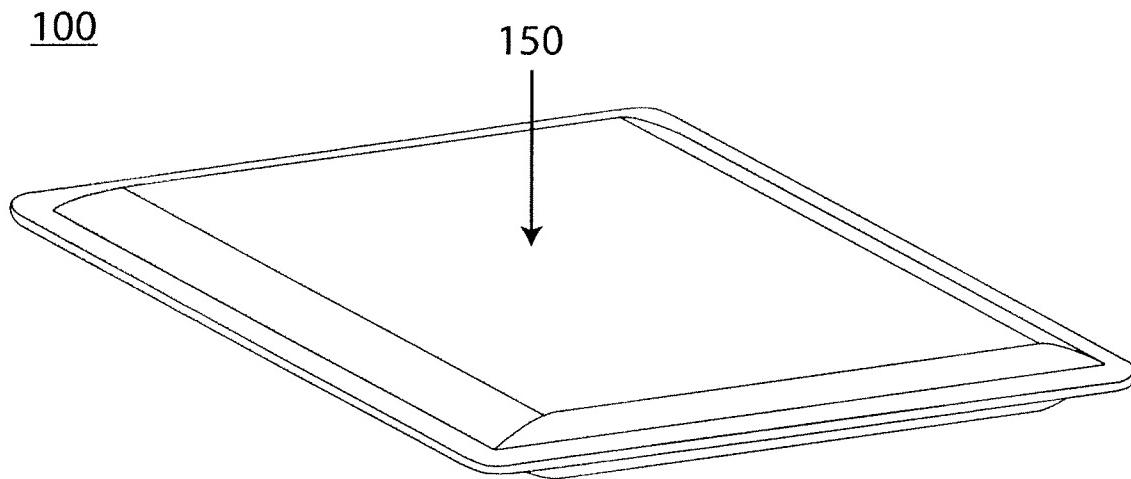


Fig. 8

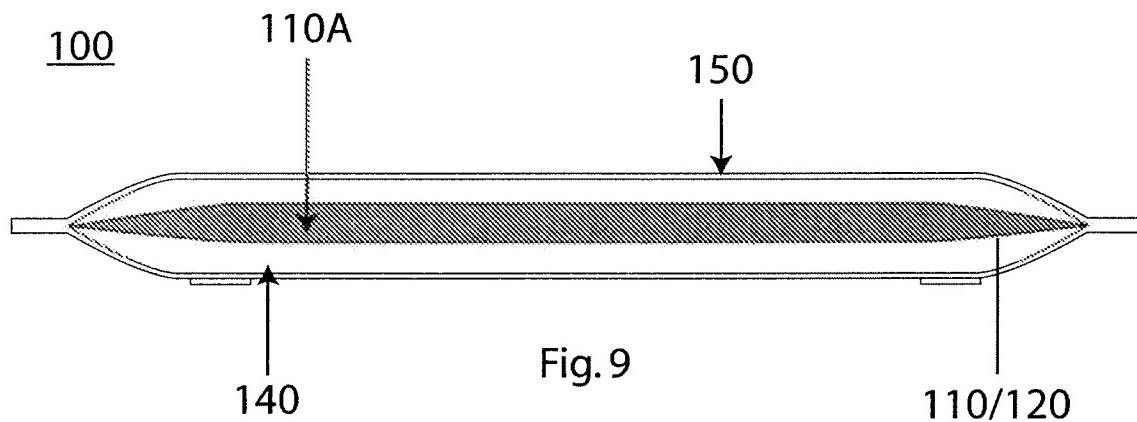


Fig. 9

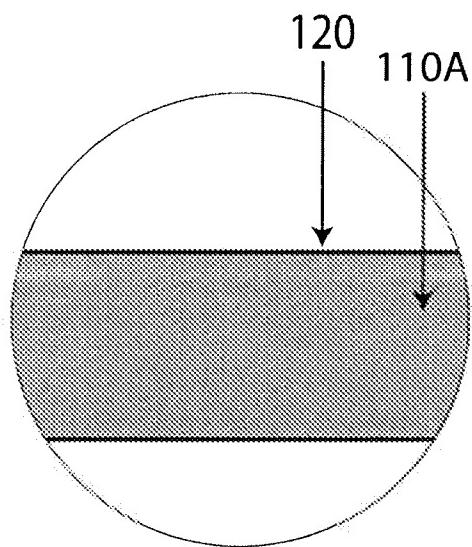
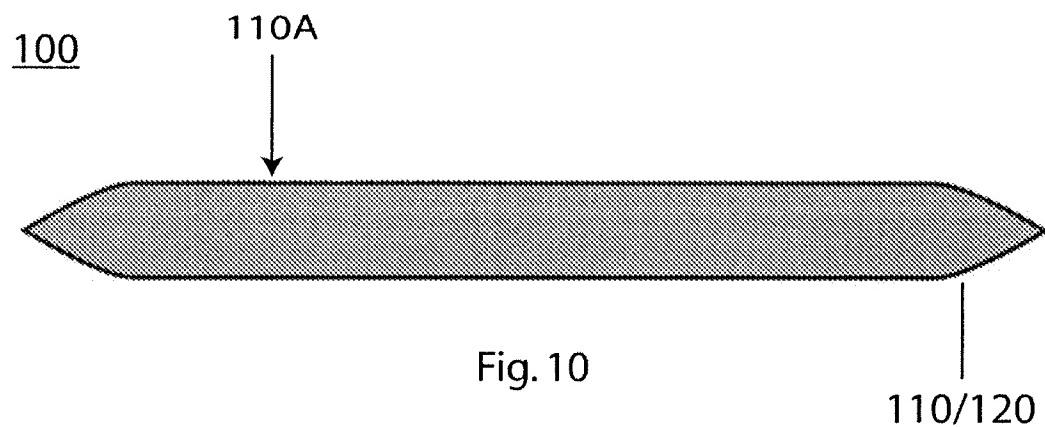


Fig. 11

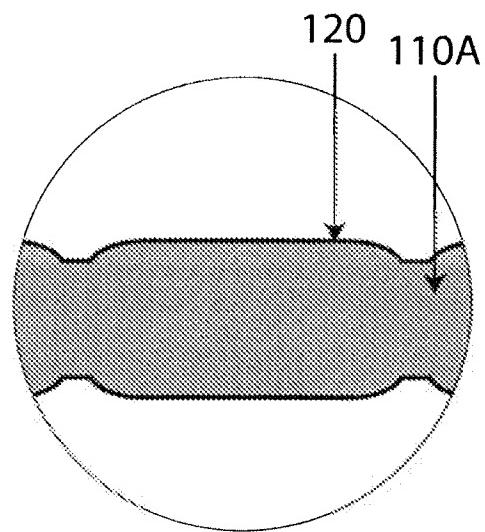
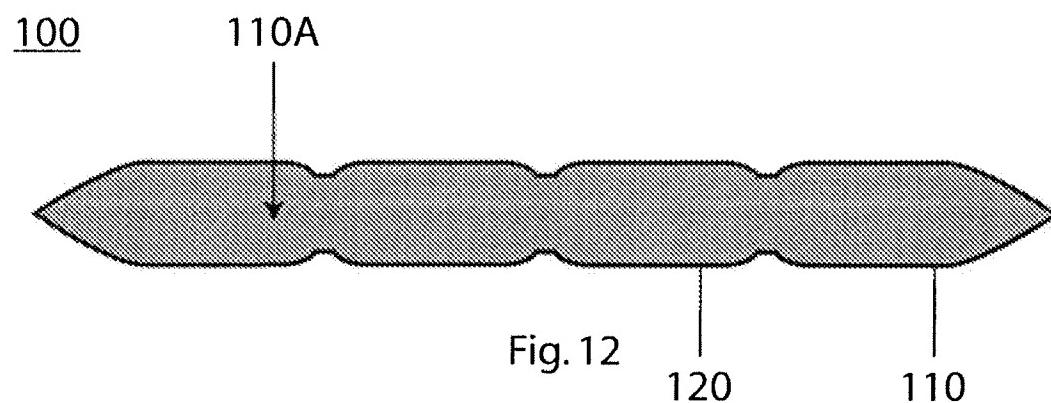


Fig. 13

Electronic Acknowledgement Receipt

EFS ID:	7829006
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	COOLING PLATFORM
First Named Inventor/Applicant Name:	GERARD E. PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	20341-0001
Receipt Date:	16-JUN-2010
Filing Date:	14-APR-2010
Time Stamp:	17:12:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part /.zip	Pages (if appl.)
1	Preliminary Amendment	20341PrelimAmendment.PDF	264017 967d95f1530acb070e3279b0c638eda908a 4d6c7	no	13

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JA0153

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New International Application Filed with the USPTO as a Receiving Office

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(Column 1)		(Column 2)			RATE (\$)	Fee (\$)	RATE (\$)	Fee (\$)	
FOR	NUMBER FILED	NUMBER EXTRA		N/A			N/A		
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<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A		N/A			N/A		
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A			N/A		
TOTAL CLAIMS (37 CFR 1.16(j))	minus 20 =	*		X \$ =			OR X \$ =		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		X \$ =			X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).								
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL		TOTAL		
APPLICATION AS AMENDED – PART II					OTHER THAN SMALL ENTITY OR SMALL ENTITY				
(Column 1)		(Column 2)		(Column 3)	SMALL ENTITY	OR	SMALL ENTITY		
AMENDMENT 06/16/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(j))	* 20	Minus	** 20	= 0	X \$26 =	0	OR X \$ =	
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(Column 1)					(Column 2)	(Column 3)			
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* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3"

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

**Legal Instrument Examiner:
/Trina Steptoe/**

SCORE Placeholder Sheet for IFW Content

Application Number: 12760045

Document Date: 6/16/2010

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

- Drawings – Other than Black and White Line Drawings

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 12/760,045		Filing Date 04/14/2010		<input type="checkbox"/> To be Mailed					
APPLICATION AS FILED – PART I						OTHER THAN SMALL ENTITY							
(Column 1)		(Column 2)		SMALL ENTITY <input checked="" type="checkbox"/>		OR		SMALL ENTITY					
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)					
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A		N/A					
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TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 = * 				X \$ =		X \$ =					
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 = *				X \$ =		X \$ =					
<input type="checkbox"/> APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).											
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))													
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL		TOTAL					
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	Independent (37 CFR 1.16(h))		*		Minus		***		=		X \$ =		
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))												
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))												
	TOTAL ADD'L FEE		TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE		OR				
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						Legal Instrument Examiner: /CHERRI FITZGERALD/							

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/760,045	04/14/2010	3744	462	20341-0001	16	2

CONFIRMATION NO. 8273

75398
 WASSERMAN, COMDEN & CASSELMAN, L.L.P.
 5567 RESEDA BOULEVARD
 SUITE 330
 TARZANA, CA 91357-7033

FILING RECEIPT



OC000000041307844

Date Mailed: 04/27/2010

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Applicant(s)

GERARD E. PRENDERGAST, Chicago, IL;

Power of Attorney: The patent practitioners associated with Customer Number 75398**Domestic Priority data as claimed by applicant****Foreign Applications**

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The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/760,045**

Projected Publication Date: 10/20/2011**Non-Publication Request:** No**Early Publication Request:** No

** SMALL ENTITY **

Title

COOLING PLATFORM

Preliminary Class

062

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/760,045	04/14/2010	GERARD E. PRENDERGAST	20341-0001 CONFIRMATION NO. 8273 POA ACCEPTANCE LETTER

75398
WASSERMAN, COMDEN & CASSELMAN, L.L.P.
5567 RESEDA BOULEVARD
SUITE 330
TARZANA, CA 91357-7033

Date Mailed: 04/27/2010



"OC000000041307716"

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/14/2010.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/gbien-aime/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

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**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Applicant/Owner Name	
Filing Date	4/11/2010
First Named Inventor	FRANDELLA M. GERAUD
Title	COLD-TEST PLATEFORM
Art Unit	
Examiner Name	
Attorney Docket Number	JAS41-DODI

I hereby revoke all previous powers of attorney given in the above-identified application.

I hereby appoint:



Practitioner(s) associated with the Customer Number:

76348

OR



Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to forward all business to the United States Patent and Trademark Office connected therewith.

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Appointee(s),



Assignee(s) record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed from PTO/USPTO.

SIGNATURE of Assignee or Assignee(s) of Record

Signature		Date	
Name	GERARDINE M. GERAUD	Telephone	(703) 305-7747
Title and Company	CFO GOOD PLATEFORM		

NOTE: Signatures of all the inventors or assignees of record of the case must be attached. Submit multiple forms if more than one signature is required, see below.



*Total of _____ forms are submitted.

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Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:	COOLING PLATFORM			
First Named Inventor/Applicant Name:	GERARD PRENDERGAST			
Filer:	Reid Eric Dammann			
Attorney Docket Number:	20341-0001			
Filed as Small Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	82	82
Utility Search Fee	2111	1	270	270
Utility Examination Fee	2311	1	110	110
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

JA0164

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD (\$)	462

Electronic Acknowledgement Receipt

EFS ID:	7413851
Application Number:	12760045
International Application Number:	
Confirmation Number:	8273
Title of Invention:	COOLING PLATFORM
First Named Inventor/Applicant Name:	GERARD PRENDERGAST
Customer Number:	75398
Filer:	Reid Eric Dammann
Filer Authorized By:	
Attorney Docket Number:	20341-0001
Receipt Date:	14-APR-2010
Filing Date:	
Time Stamp:	15:31:26
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$462
RAM confirmation Number	11615
Deposit Account	
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/Message Digest	Multi Part (Zip file appl.)	Pages

1		203410001NPACoolingPlatform.pdf	428949 1934ae285d09b1cd2632ce45156ae4c05be 141fa	yes	16				
Multipart Description/PDF files in .zip description									
Document Description		Start		End					
Specification		1		11					
Claims		12		15					
Abstract		16		16					
Warnings:									
Information:									
2	Drawings-only black and white line drawings	203410001Figs.pdf	105583 1ac368a36b0dc3a9e63639e627a5cedf413 4c7ae	no	5				
Warnings:									
Information:									
3	Oath or Declaration filed	DEC.PDF	292019 632782b981fa6336463a783289ed3761133 e7e2e	no	4				
Warnings:									
Information:									
4	Power of Attorney	POA.PDF	208301 6c4626a1668ddbf2045e288d463a64bc838 2fcfd7	no	2				
Warnings:									
Information:									
5	Fee Worksheet (PTO-875)	fee-info.pdf	32582 12ebdbce6e5cf8fdc7ecd34d94e5f77ed601 9610	no	2				
Total Files Size (in bytes):				1067434					

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New International Application Filed with the USPTO as a Receiving Office

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UNITED STATES PATENT APPLICATION

For

COOLING PLATFORM

Inventor:

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Prepared By:

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COOLING PLATFORM

BACKGROUND

1) Field of the Invention

The invention relates to temperature controlled platforms, particularly, cooling platforms for animals.

2) Discussion of the Related Art

Pet beds serve as a place to rest or sleep, for pets such as cats and dogs. Many times, depending on the application, these pet beds are directed towards cooling or heating pets. These beds can be used during post-surgery recovery, dysplasia, or post-chemotherapy. Generally, these pet beds aid in the comfort and safety of the pet.

Many pet beds are known to have cooling mechanisms. Some pet beds provide a centralized cooling plate with no mechanism to circulate. These pet beds are electrically connected to a power source. Power sources often times fail, negating the "portable" aspect of a product. Further, such systems require heavy and complex equipment, and are not typically portable or user friendly.

There are other pet beds available which use alternative or "non-electric" means to cool a pet. These pet beds generally use ice packs. However, these ice packs eventually melt and need to be replaced. Accordingly, it is desirable to provide an improved cooling bed for pets.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention is described by way of example with reference to the accompanying drawings wherein:

Figure 1 illustrates a top angled perspective of a cooling platform.

Figure 2 illustrates a top view of a temperature regulation layer of the cooling platform.

Figure 3 illustrates a cross-sectional view of the cooling platform.

Figure 4 illustrates a detailed cross-sectional view of the cooling platform.

Figure 5 illustrates a cross-sectional view of a channeled covering layer of the cooling platform.

Figure 6 illustrates a detailed cross-sectional view of an alternative embodiment of the cooling platform.

Figure 7 illustrates a detailed cross-sectional view of the alternative embodiment of the cooling platform.

Figure 8 illustrates a top angled perspective of an alternative embodiment of the cooling platform.

Figure 9 illustrates a cross-sectional perspective of the alternative embodiment of the cooling platform.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is now described with reference to figures where like reference numbers indicate identical or functionally similar elements. While specific configurations and arrangements are discussed, it should be understood that this is done for illustrative purposes only. A person skilled in the relevant art will recognize that other configurations and arrangements can be used without departing from the spirit and scope of the invention.

The invention described herein is multilayered. Each layer, in an embodiment, is bonded to the next layer in some fashion, in that, each layer is comprised of a first and a second side and is bonded to the respective side accordingly. As such, the term "bonded" refers to the joining, adhering, affixing, connecting, attaching, threading or the like, through chemical, mechanical or electrical avenues, of at least two elements of a cooling platform, such that the elements tend to be and remain bonded during normal use conditions of the cooling platform.

FIG. 1 illustrates a cooling platform 100. The cooling platform 100 is comprised of a temperature regulation layer 110 (illustrated in FIG. 2), a support layer 140 (illustrated in FIG. 3), and a channeled covering layer 150.

FIG. 2 illustrates the temperature regulation layer 110 in more detail. The temperature regulation layer 110 is adapted to hold a composition 110A (illustrated in FIG. 3) and provides temperature regulation to the cooling platform 100. The temperature regulation layer 110 has an angled segment 120, which includes a top side

and a bottom side (illustrated FIG. 8 and FIG 9). The angled segment 120 is formed by channels 130 and includes a sealed perimeter.

In an embodiment, and as illustrated in FIG. 2, the temperature regulation layer 110 includes a plurality of angled segments 120 formed by a plurality of channels 130. The channels 130 effectively space the top and bottom sides of each angled segment 120 at a predefined distance. In an embodiment, the predefined distance can equal zero, thus completely forming each angled segment 120 and cutting off any interconnection or communication therein.

In another embodiment, that predefined distance can be measured depending on the object using the cooling platform 100. In this embodiment, the predefined distance allows for interconnection between the angled segments 120 of the composition 110A (including pressure portions 110B as seen in FIG. 6 and FIG. 7). In this embodiment, the interconnection would apply to those angled segments 120 within the perimeter of the temperature regulation layer 110, as the perimeter is sealed.

The cooling platform 100 is adapted to provide cooling to a wide variety of objects. As used herein, the term "object" can mean a variety of things including but not limited to domestic animals, such as cats and dogs. The use of the cooling platform 100 can extend to human use in vehicles or similar circumstances calling for such regulation. Generally, the cooling platform 100 can be used for anything that needs or requires either heat, cool or temperature regulation.

FIG. 3 and FIG. 4 illustrate a cross-section of the cooling platform 100, which includes the support layer 140. The support layer 140 is substantially bonded to the

bottom side of the temperature regulation layer 110. The support layer 140 comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object.

In an embodiment, the support layer 140 can be made from polyurethane foam, elastomer foam, memory foam, or other suitable material. In another embodiment, the support layer 140 is made of an orthopedic foam, of a consistency designed to protect joints and provide appropriate support to the skeletal system.

In an embodiment, the support layer 140 can include soft, pliable, and removable stuffing material to provide cushioning, allowing a user to establish the firmness or softness desired. Such material can include synthetic pillow stuffing such as polyester filling, or can include feathers such as goose or duck down. As a further embodiment, the support layer 140 can include a combination of dense foam and softer pillow stuffing. It is contemplated that different types of cushioning can be utilized for different types, sizes, and weight of objects.

FIG. 3 and FIG. 4 further illustrate the composition 110A within the temperature regulation layer 110. The composition 110A serves to control the temperature of the cooling platform 100. The cooling platform 100 can handle a range of different temperatures depending on the object in use. This can mean that the composition 110A can encompass a variety of cooling and heating compounds.

In an embodiment, the composition 110A can be activated by a wide variety of means, e.g. the addition of water. In this embodiment, the composition 110A can include ammonium nitrate and distilled water.

In another embodiment, the composition 110A can be activated by pressure, wherein the pressure of a object sitting on the cooling platform 100 activates the composition 110A, triggering an endothermic process and subsequent cooling. Upon the release of that pressure, the composition 110A undergoes a subsequent recharge, essentially the reverse of the initial reaction. The above is consistent with Le Chatelier's principle, in that, the reaction reverses upon the application or absence of pressure. In this embodiment, the composition 110A is comprised of: thirty percent carboxmethyl cellulose; twenty percent water; thirty-five percent polyacrylamide; and at least fifteen percent alginic acid. The aforementioned composition 110A also provides a cooling effect for an increased duration over other known compositions.

FIG. 5 illustrates a cross-section of the channeled covering layer 150. The channeled covering layer 150 can encompass both the support 140 and temperature regulation layers 110. The channeled covering layer 150 can comprise a piece of fabric or netting, which can include, but is not limited to, plastic, nylon or cloth netting, or a micro-fiber material with a waterproof layer.

The fabric or netting can allow circulated air to penetrate and escape to the surface, effectuating the cooling process. The fabric or netting can be air tight or resistant to air penetration, to provide indirect cooling. In another embodiment, the channeled covering layer 150 can be made of a firm material, such as plastic, which retains its shape when sat upon by an object. Additionally, the channeled covering layer 150 can include padding to provide a comfortable seating surface.

In an embodiment, the channeled covering layer 150 can be easily removed via a bottom and/or zipper or any other similar means attached thereto. The channeled covering layer 150 can be made of material such that it can be easily replaced with a different top portion made of another material (and/or having different thickness) as desired. Further, in an embodiment, the channeled covering layer 150 can contain antibacterial, stain resistant, chew resistant, and/or anti flea materials.

FIG. 6 and FIG. 7 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 includes a pressure portion 110B. The pressure portion 110B allows for the ability to increase or decrease the firmness of the temperature regulation layer 110 and thus the cooling platform 100 by the addition of gases such as oxygen. This feature can be predetermined or varied as set forth below.

In an embodiment, the pressure portion 110B can include a means for inflating or deflating 115 the pressure portion 110B and the temperature regulation layer 110. The means for inflating and deflating 115 can include a variety of structures designed for air intake and out take. Often, the structures involved in such means include a protruding valve stem and a cap. The valve stem can be connected or coupled with a threaded portion for attachment to a mechanical or electrical pump, or can be comprised of a plastic valve allowing for human pressure inflation.

In an embodiment, the means for inflating or deflating can interconnect the pressure portions 110B held within the plurality of angled segments 120. In another embodiment, each pressure portion 110B can be provided for individually within each

angled segment 120 at either a fixed pressure or established using the above mentioned interconnected means.

FIG. 8 and FIG. 9 illustrate an alternative embodiment of the invention. In this embodiment, the temperature regulation layer 110 is adapted to hold a composition 110A in a single angled segment 120. Therefore, the temperature regulation layer 110 becomes the single angled segment 120. The perimeter of the angled segment 120, which includes a top side and a bottom side, is sealed preventing the composition 110A from leaking.

In use, the cooling platform 100 is able to regulate the temperate of an object. The object contacts the channeled covering layer 150 exerting pressure over the cooling platform 100. The support layer 140 is designed to be sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. As stated herein, the support layer 140 can be comprised of a wide variety of components.

Depending on the composition 110A used, the temperature regulation layer 110 transfers heat from the object. In further effectuating heat transfer, the channels 130 have at least two advantages. First, the channels 130 are designed to mix air with the cooling process between the object and the channeled covering layer 150. Second, the channels 130 substantially prevent or minimize the composition 110A from being pushed out of the angled segment 120. Obviously, in other embodiments presented herein, the angled segments 120 can be completely segmented, fully preventing such an issue. The channeled covering layer 150 also aids in effectuating heat transfer from the object by its composition of channels. Of course, the degree of such aid depends in large part on the type of material used with the cooling platform 100.

In adjusting to accommodate the object, the pressure portions 110B are used. As stated above, the pressure portions 110B can be individual and predetermined or variable and interconnected. Thus, the interconnected pressure portions 110B can be varied through the means for inflating and deflating 115. Also, as stated herein, the channeled covering layer 150 can provide a degree of comfort and firmness depending on the material used, lending to the overall versatility of the cooling platform 100.

The invention contains a large amount of advantages. An advantage of the invention is the composition 110A. The composition 110A is able to be re-used without the need for electricity, refrigeration, additional treatments, or extraneous equipment. The advantage stems from the components within the composition 110A, which effectively keep a temperature of 3-4 degrees Fahrenheit lower than body temperature. This particular composition 110A is able to recharge after the alleviation of pressure (after the object moves). This particular advantage further allows for low-cost and eco-friendly solutions to temperature regulating and aids in the "mobility" aspect of the invention by not requiring input from other sources and by virtue of being a non-toxic substance.

Another advantage of the invention is the unique design. The design enhances and optimizes the cooling performance. The channels 130 allow for a mixture of air flow between the object and the cooling platform 100, effectively cooling the object at a quicker rate. Furthermore, the presence of the predefined distance from the top and bottom of the angled segment 120, essentially prevents the dispersion of the composition

110A from the pressure the object exerts on the cooling platform 100. The overall effect increases the rate of cooling on the targeted object.

Another advantage of the invention is the interconnected pressure portions 110B. The pressure portions 110B provide the ability to increase or decrease the overall pressure of the cooling platform 100. This feature is particularly advantageous given the large variation in object weight.

While certain exemplary embodiments have been described and shown in the accompanying drawings, it is to be understood that such embodiments are merely illustrative and not restrictive of the current invention, and that this invention is not restricted to the specific constructions and arrangements shown and described since modification can occur to those ordinarily skilled in the art.

CLAIMS

What is Claimed:

1. A cooling platform for cooling an object, the platform comprising:
 - a temperature regulation layer adapted to hold a composition, the temperature regulation layer having a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance;
 - a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and
 - a channeled covering layer encompassing the support and temperature regulation layers.
2. The cooling platform of claim 1 wherein the plurality of angled segments include a pressure portion
3. The cooling platform of claim 2 wherein the pressure portions are interconnected.

4. The cooling platform of claim 3 wherein the pressure portions include a means for inflating and deflating.

5. The cooling platform of claim 1 wherein the temperature regulation layer includes a composition.

6. The cooling platform of claim 5 wherein the composition is activated by pressure.

7. The cooling platform of claim 5 wherein the composition is comprised of:

thirty percent carboxmethyl cellulose;

twenty percent water;

thirty-five percent polyacrylamide; and

fifteen percent alginic acid.

8. The cooling platform of claim 1 wherein the support layer is comprised of memory foam.

9. The cooling platform of claim 1 wherein the channeled covering layer comprises a piece of fabric or net covering.

10. The cooling platform of claim 1 wherein the angled segments within the sealed perimeter are sealed.

11. A cooling platform for cooling an object, the platform comprising:

a temperature regulation layer adapted to hold a composition, the temperature regulation layer having an angled segment formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels form sides by contacting the top side with the bottom side;

a support layer substantially bonded to the bottom side of the temperature regulation layer, the support layer comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object; and

a channeled covering layer encompassing the support and temperature regulation layers.

12. The cooling platform of claim 11 wherein the temperature regulation layer includes a composition.

13. The cooling platform of claim 12 wherein the composition is activated by pressure.

14. The cooling platform of claim 12 wherein the composition is comprised of:

thirty percent carboxmethyl cellulose;

twenty percent water;

thirty-five percent polyacrylamide; and

fifteen percent alginic acid.

15. The cooling platform of claim 11 wherein the temperature regulation layer includes a pressure portion within the angled segment.

16. The cooling platform of claim 15 wherein the pressure portion include a means for inflating and deflating.

ABSTRACT

A cooling platform for cooling an object is provided. The cooling platform comprises a temperature regulation, a support layer, and a channeled covering layer. The temperature regulation layer is adapted to hold a composition. The temperature regulation layer has a plurality of angled segments, wherein angled segments within a sealed perimeter of the temperature regulation layer are formed by a top side and a bottom side at a predefined distance, and channels, wherein the channels substantially form sides by contacting the top side with the bottom side at a distance lesser than the predefined distance. The support layer is substantially bonded to the bottom side of the temperature regulation layer and is comprised of material sufficiently pliable to deform and sufficiently rigid to withstand collapse in response to the weight of the object. The channeled covering layer encompasses the support and temperature regulation layers.

100

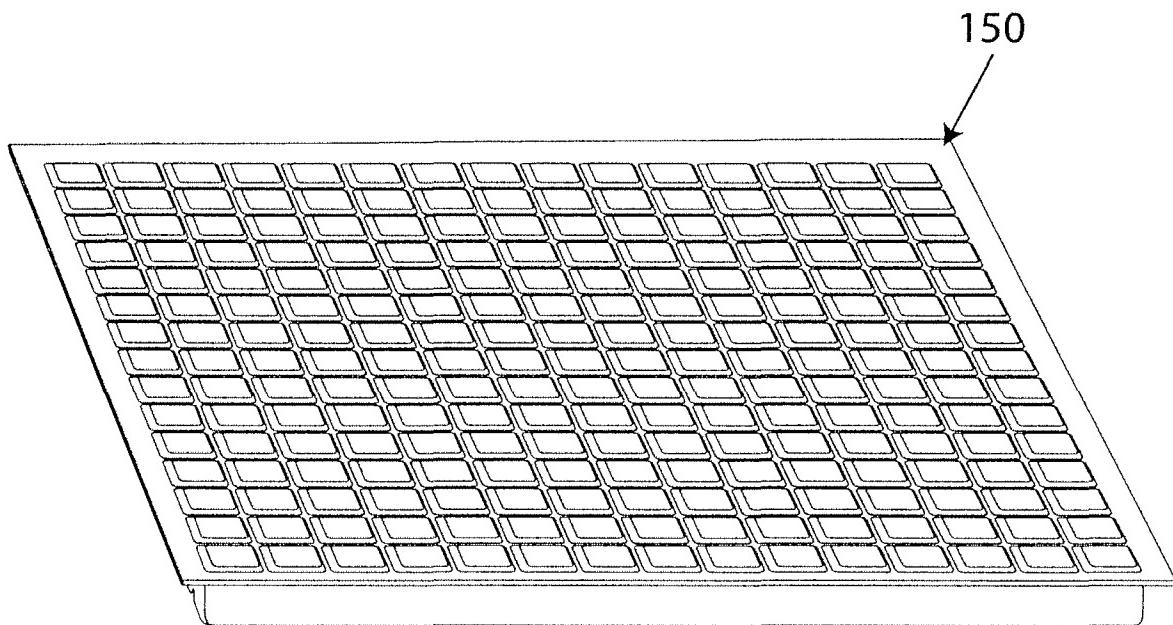


Fig. 1

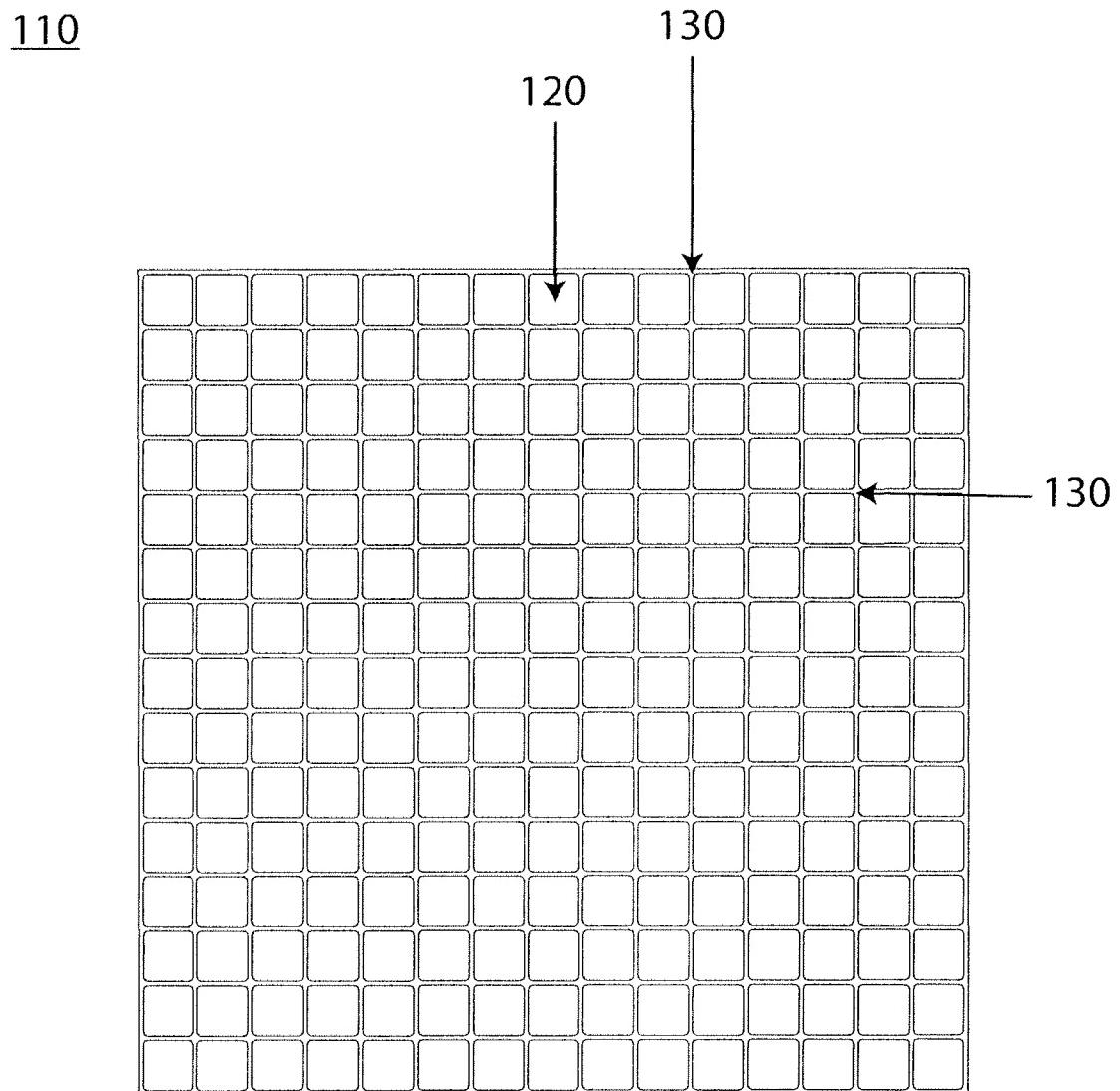


Fig. 2

100

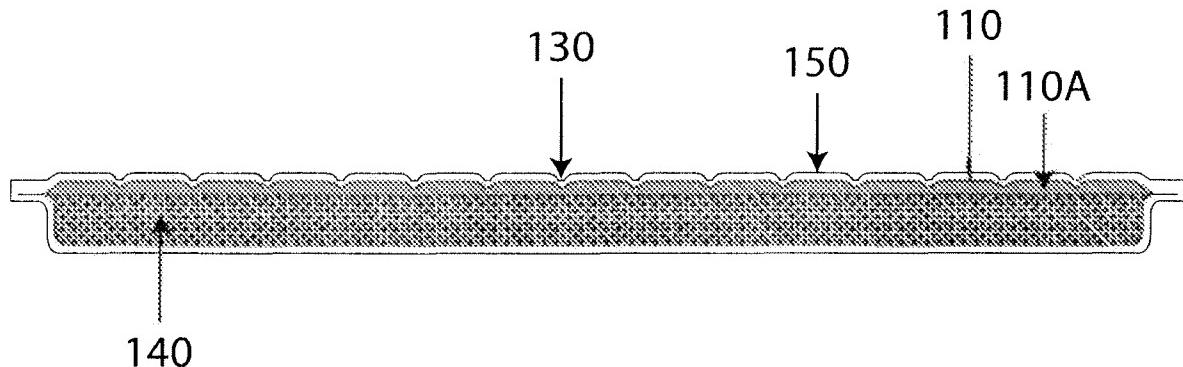


Fig. 3

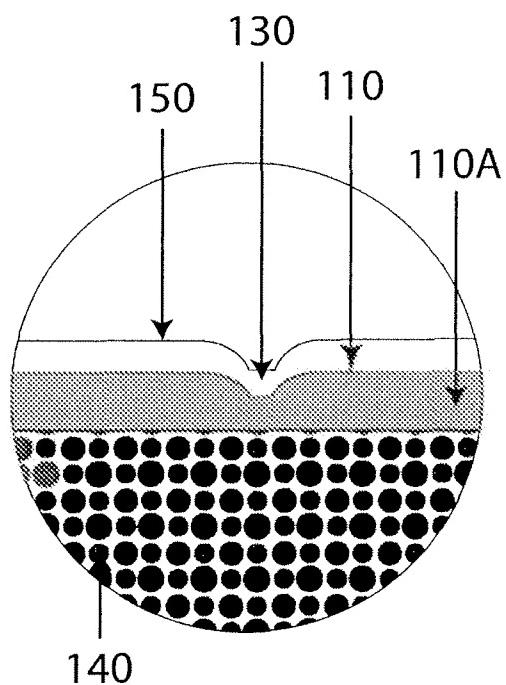


Fig. 4

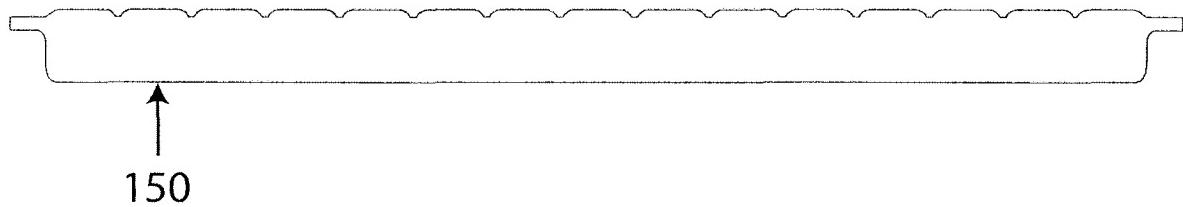


Fig. 5

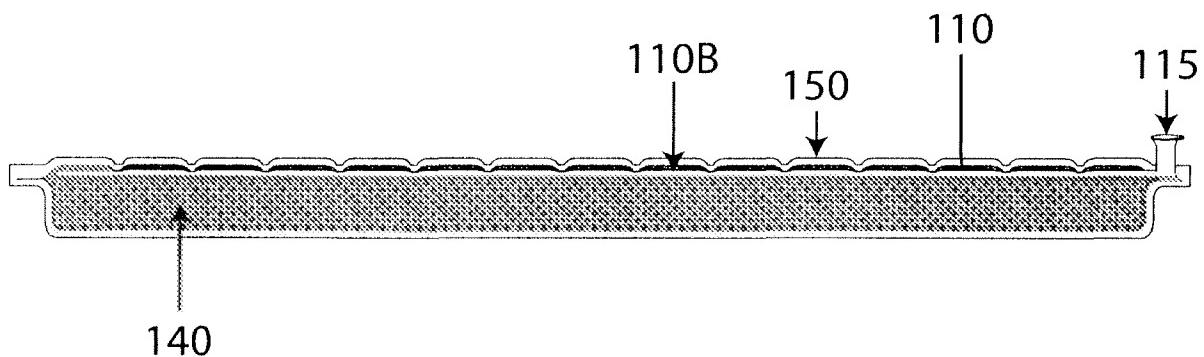


Fig. 6

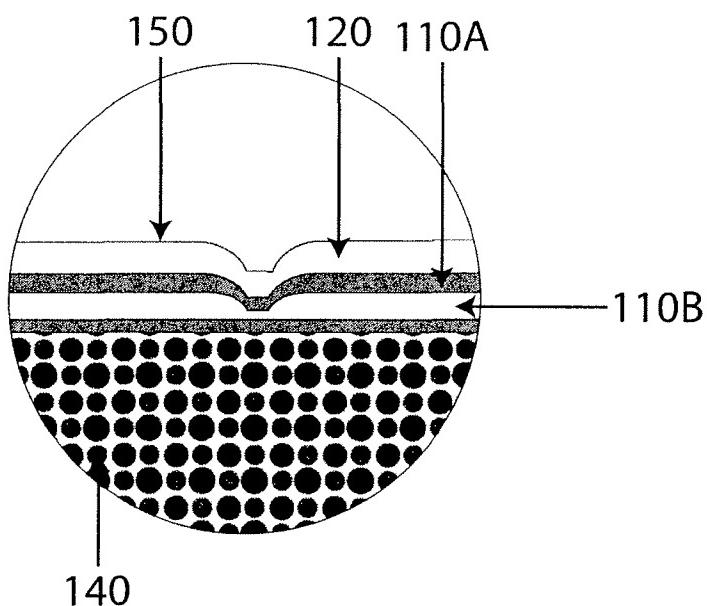


Fig. 7

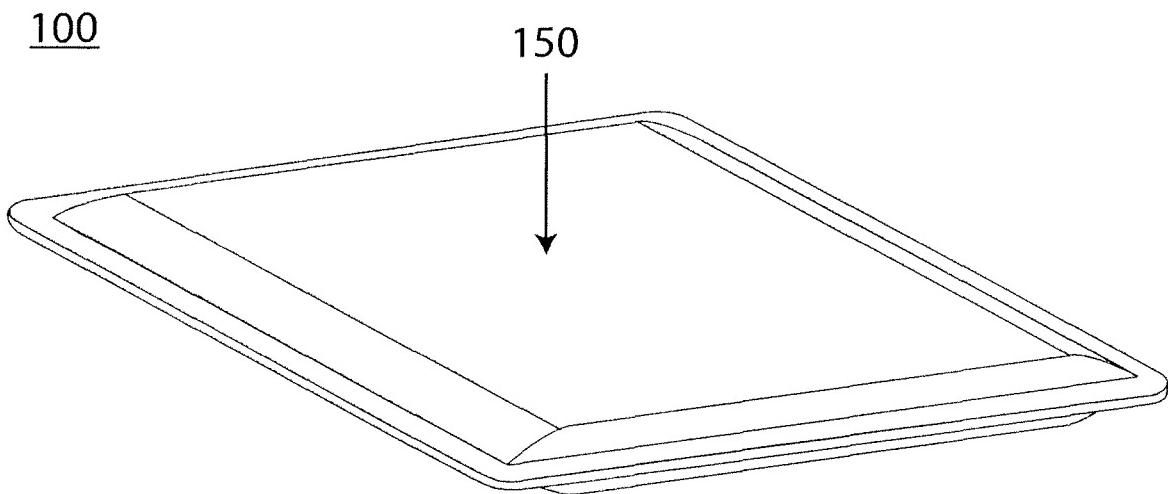


Fig. 8

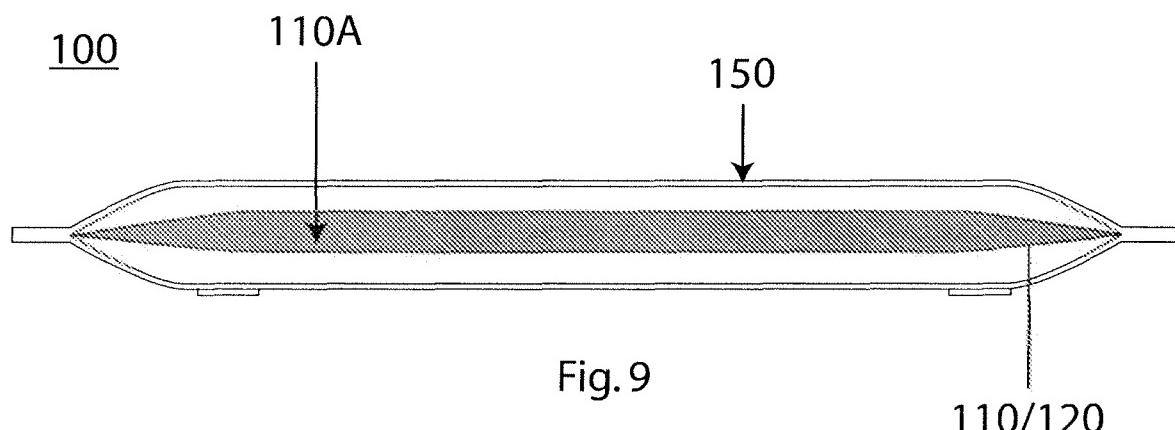


Fig. 9

110/120

JA0189

Doc Code: OATH

Document Description: Oath or declaration filed

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**DECLARATION FOR UTILITY OR
DESIGN
PATENT APPLICATION
(37 CFR 1.63)**

Declaration Submitted With Initial Filing

OR

Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (f)) required)

Attorney Docket Number	20341-0001
First Named Inventor	PRENDERGAST, GERARD
COMPLETE IF KNOWN	
Application Number	
Filing Date	4/14/2010
Art Unit	
Examiner Name	

I hereby declare that: (1) Each inventor's residence, mailing address, and citizenship are as stated below next to their name; and (2) I believe the inventor(s) named below to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

COOLING PLATFORM

(Title of the Invention)

the application of which

is attached hereto

OR

was filed on (MM/DD/YYYY) [redacted] as United States Application Number or PCT International

Application Number [redacted] and was amended on (MM/DD/YYYY) [redacted] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified application, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the application-as-filed with respect to: 1) the above-identified application, 2) any foreign application to which the above-identified application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified US application, and 3) any U.S. application from which benefit is sought in the above-identified application.

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[Page 1 of 3]

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DECLARATION — Utility or Design Patent Application**Claim of Foreign Priority Benefits**

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

[Page 2 of 3]

JA0191

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle if any) <i>GERARD E</i>		Family Name or Surname <i>PENDERCAST</i>	
Inventor's Signature <i>G. E. Pendercast</i>		Date <i>4/2/10</i>	
Residence City <i>CHICAGO</i>	State <i>IL</i>	Country <i>US</i>	Classification <i>OS</i>
Mailing Address <i>4853 N. Drew Rd.</i>			
City <i>CHICAGO</i>	State <i>IL</i>	Zip <i>60625</i>	Country <i>US</i>
<input type="checkbox"/> Attached hereto or a hereto reference is being made to the _____ <small>Statement of either PTO/SB/024 or 852.2 attached hereto</small>			

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The information provided by you in this form will be subject to the following routine uses:

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Date: 04/14/10

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

12/760,045**APPLICATION AS FILED – PART I**

(Column 1) (Column 2)

FOR	NUMBER FILED	NUMBER EXTRA
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A
TOTAL CLAIMS (37 CFR 1.16(l))	16 minus 20 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))		

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

(Column 1) (Column 2) (Column 3)

AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
			Minus	=
Total (37 CFR 1.16(l))	*		**	=
Independent (37 CFR 1.16(h))	*	Minus	***	=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

(Column 1) (Column 2) (Column 3)

AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
			Minus	=
Total (37 CFR 1.16(l))	*		**	=
Independent (37 CFR 1.16(h))	*	Minus	***	=
Application Size Fee (37 CFR 1.16(s))				
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))				

SMALL ENTITY

RATE (\$)	FEES (\$)
N/A	82
N/A	270
N/A	110
x\$26	
x\$110	
195	
TOTAL	462

**OTHER THAN
SMALL ENTITY**

RATE (\$)	FEES (\$)
N/A	
N/A	
N/A	
x\$52	
x\$220	
390	
TOTAL	

SMALL ENTITY

RATE (\$)	ADDI- TIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL ADD'T FEE	

**OTHER THAN
SMALL ENTITY**

RATE (\$)	ADDI- TIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL ADD'T FEE	

OR

RATE (\$)	ADDI- TIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL ADD'T FEE	

**ADDITIONAL
FEE (\$)**

RATE (\$)	ADDI- TIONAL FEE (\$)
X =	
X =	
N/A	
TOTAL ADD'T FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

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